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ORIGINAL LECTURES.

CLINICAL LECTURE

ON SOME OF

THE ABUSES OF THE DRAINAGE-TUBE.

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GENTLEMEN: The drainage-tube has become one of the constant appliances in the treatment of wounds, abscesses, and tissues undergoing suppurative inflammation. In passing through the surgical wards of an hospital, one can but be struck with the frequency with which they are met. They protrude from every abscess, in whatever stage of healing it may be; from wounds of every grade; from open joints; from compound fractures; from areas of cellulitis. If we inquire as to the reasons for using them under these varying conditions and circumstances, we learn that they are placed between the surfaces of the fresh wound, to prevent the accumulation of septic fluids; that they are left in abscess cavities to drain away fluids and to admit the washing out of the cavities; that they are passed through inflamed cellular tissue to drain off pus, and allow the injection of disinfectants.

If we examine critically as to the conditions under which the tube was first applied, we shall find that in many instances, had the wound been properly treated, no septic fluid could have accumulated, and that the tube was the only thing which made the collection of such fluid possible. If, again, we examine individual cases under treatment, we shall find that, in a surprisingly large number, the drainage-tube has not only long ceased to drain away septic matters, but has itself become a source of irritation, and is perhaps the only obstacle to the rapid healing of the wound. The drainage-tube, therefore, though an instrument of great value when properly employed, is undoubtedly capable of doing much mischief when used without proper discrimination. It is of great importance to commence its use with correct ideas as to the precise circumstances and conditions to which it is adapted. In the first place, let me say that the drainage-tube can serve but two useful purposes, viz., 1, as a drain of fluids from a cavity; and, 2, as a medium for the injection of fluids into a cavity. It should be added that it may act in this twofold capacity in a single case. When, however, it ceases to be useful in one or the other of these functions, it has ceased to be useful at all, and its further employment is harmful. Now let us apply these principles to practice in the cases which have passed under your observation in this hospital.

In incised wounds, the tube should never be used when the two surfaces can be brought accurately together and maintained in apposition. This may seem a needless piece of advice, and yet I do not doubt that you have seen it used in just such cases, and perhaps many times. In the removal of tumors large flaps are often formed, and as they are raised up it seems quite impossible to bring the opposing surfaces accurately together; and yet with a little care they can be adjusted, and with careful padding maintained in apposition for the brief period necessary to their union. It is simple carelessness and negligence on the part of the surgeon who allows the surfaces to separate so that a dépot is formed for the accumulation of fluids, which necessitates the use of the tube. And I am quite sure that the popularity of the drainage-tube is such with many surgeons that they would place it between the surfaces of the wound without even raising the question as to their ability to secure immediate union by properly adjusting the external dressings. But the difference in the time of healing wounds capable of accurate adjustment, treated with and without the tube, is very great; in the former case, the tube acts as an irritant, and the wound may not, at the best, heal in several weeks, while in the latter, union may be perfected in forty-eight hours.

To thrust a drainage-tube into such a wound and maintain it there for the purposes of drainage and the injection of disinfecting fluids, is, to say the least, very improper practice. Consider, therefore, in every incised wound, whether you cannot so adjust and maintain the opposed surfaces that no open space can exist.

In amputation wounds the tube is now generally thrust into the bottom of the wound, and some surgeons allow it to pass completely through the base of the wound. There it is often maintained in position long after all danger has passed of the accumulation of fluids, as an irritant, preventing the final closure of the wound. Now in the larger number of amputations the flaps should be so formed as to place the angle of separation at the most dependent part. This position admits of the most perfect drainage of the wound without the interposition of a tube, or tent, or other irritating body. But even if a tube is deemed immediately necessary, it should only penetrate to the bone, where a cavity may exist if the flaps are not well supported. If the flaps are made antero-posteriorly, the lines of separation being transversely, the tendency to the accumulation of fluid within the flaps is increased. In this case the tube may prove useful for a few days; but it is usually possible to place the stump in such position that the drainage is direct. If that is done, the tube is either useless or needs to be employed but for a day or two. It should also be borne in mind that an amputation wound may heal without suppuration if the flaps are properly supported at every point, and no foreign substance intervenes.

In abscesses unconnected with diseased bone, the drainage-tube is frequently, if not generally, used much too long. The usual method of treating cold abscesses is to puncture, introduce the drainage-tube, and daily throw carbolized injections into the cavity through the tube, which is allowed to remain sometimes for months. The rule should be to dispense with the tube as soon as we are satisfied that the cavity is free from septic matters, which may follow the first injection. Then all that is required is apposition of the opposing surfaces, and union of the granulations will rapidly take place. Apposition is secured by uniform external compression. In many cases these abscesses may be perfectly obliterated in five or six days by the following method: Puncture the sac and evacuate the contents, introduce the tube, and holding the edges of the puncture firmly about it, inject a carbolic solution three per cent. strength until the cavity is over-distended; allow the fluid to escape, and inject again until the escaping fluid is colorless; now remove the tube, carefully adjust wet carbolized sponges, squeezed as dry as possible, over the entire surface of the abscesses, and bandage them firmly in position. The effect is to cleanse the cavity of all septic matters, and then to press the walls of the abscess gently and firmly together. Union of the two walls is often completed at a single dressing, retained

four or five days. If the abscess is inflamed, the tube is often useful in securing drainage from recesses which otherwise would retain decomposing fluids. But there comes a limit to the time when the tube is useful for drainage, and should only be employed to throw injections into the deeper parts which would not be reached by the ordinary force of the syringe.

Through-and-through drainage has latterly been recommended and practised in open wounds, suppurative cellulitis, suppurating joint cavities, compound fractures, etc. This method of drainage is often of very doubtful utility, and is certainly liable to great abuses. The alleged object of this treatment of wounds is to prevent inflammation by the direct antiphlogistic properties of carbolic acid applied to the surface of the wound. The tube, having fenestræ cut in it, is therefore passed completely through the wound and out at the opposite side, and the treatment consists in injecting a solution of carbolic acid through the tube several times daily, thus constantly medicating the internal surfaces of the wound by the injected fluid. It matters little on what theory this application of carbolic acid is made, for it is very liable to be abused when employed by means of through-and-through drainage-tubes. Carbolic acid can do no possible good when frequently applied to a fresh, healthy wound, but must prove an irritant which will prevent union. The drainage-tube passed through the deeper parts of such a wound is a source of irritation simply, without any other function. It is alleged that there are cavities in the deeper parts of wounds which must be drained and washed out; but the very existence of such cavities in fresh wounds too often proves that the requisite adjustment and compression of the flap or flaps was not made. The early passage of a drainage-tube through the wound of a compound fracture, and out at some unbroken part, in order to prevent inflammation, is productive of more harm than good. It may convert, when performed early, a compound fracture, which by proper means might have been made a simple fracture, into one of the most intractable wounds which we have to treat. And even if tubes are passed during the suppurative stage, it is questionable if they are nearly as efficacious as incisions into the suppurating cellular tissue, followed by injections of carbolic solutions. In suppurating cellulitis, it is advised to pass the drainage-tube through the area involved and out at a point beyond; through this perforated tube the injections are thrown for the purpose of disinfecting the cellular tissue and draining away accumulating pus. In general, drainage-tubes do much more harm than good in this disease. They add a new cause of irritation, and as they are frequently continued for a long time, they not only aggravate the acute stage of the affection, but prolong the period of recovery. The only instance in which through-and-through drainage can be useful in cellulitis is where there is a large cavity of pus which cannot be drained except by a counter-opening; and it is doubtful if this method is superior to the old one of a direct counter opening.

Many other examples might be added of the improper employment of the drainage-tubes; but they will be apparent on giving you a rule for its use. As a rule, then, use the drainage-tube only to remove from cavities fluids liable to undergo putrefactive changes if retained, and to cleanse such cavities by the injection of disinfectants. There are abundant uses of the tube for these purposes. Wounds will frequently allow depôts of purulent matters to form in spite of all our care, and these must be early drained and cleansed. Abscesses are often so placed that we cannot compress them after evacuation, but must drain and disinfect their cavities until they heal by the slow contraction of their granulations. Cellulitis may result in the formation of large collections of putrid fluids, which can best be removed by the tubes, through which the cavity can only be effectually cleansed. Inflamed joints present natural cavities which may require cleansing and drainage.

The impression which I wish to leave upon your minds is this, viz.: that the drainage-tube has certain definite uses, and when so used is of great practical value, but that it is very liable to abuse by a failure to discriminate as to the cases to which it is adapted, and the time in any given case when its usefulness ceases.

ON THE

INFECTIOUS CAUSES OF INFLAMMATION.

Two Lectures delivered at the Pathological Institute of the University of Leipsic, December 8 and 9, 1881.

BY PROF. JULIUS COHNHEIM.

LECTURE I.

(Reported for the MEDICAL NEWS, by special permission of the Author, by Dr. WALTER MENDELSON.)

GENTLEMEN: If we now turn to infection as a cause of inflammation, those diseases which have long passed under the name of *infectious* will first occupy our attention. Without entering into an elaborate definition, I would merely say that, by infectious diseases, we understand such as are caused by the action of a poison, a virus—a virus which is not present at all times and in every place, but is produced only by certain persons who are themselves the subjects of the disease—in certain localities or at certain times or seasons. Two forms of the poison are more especially distinguished, the *contagious* and the *miasmatic*. Under the former is understood a virus which develops in individuals already ill—the *endogenous* form of Pettenkofer; while by miasma we understand one which originates in the soil, in the atmosphere, or in the water, that is, always outside of a morbid body, *i. e.*, exogenously. Contagious diseases, therefore, can only be transmitted from one person to another or from an animal to man, or *vice versa;* while miasmatic diseases appear in individuals who have never been brought in contact with others similarly affected. Measles, scarlatina, whooping-cough, small-pox, exanthematic typhus, relapsing fever, syphilis—all these are purely contagious diseases, while the malarial fevers, and, above all, the intermittent, are types of purely miasmatic disorders. Measles may be acquired in any locality only by coming in contact with one already ill of that disease; while, on the other hand, you may safely associate with a person having intermittent fever, and yet get fever and ague in a malarial district without ever having as much as seen any one ill of it.

There is a class of infectious diseases, however, which cannot be placed under either of these headings. In anthrax (splenic fever), we are familiar with a disorder most markedly contagious, and which never occurs in man unless transferred to him from animals. In animals, however, we find the disease appearing without their ever having come in contact with infected individuals, the poison originating undoubtedly in a certain locality in the soil, apparently spontaneously, and therefore to be classed as a miasma. Then there is a series of diseases which spread neither by direct personal contact nor from fomites, and yet which never appear in a place without a case having been previously introduced from without. Never yet has cholera broken out in a city without a case having been brought in first, nor has any one ever yet got cholera by direct infection from one ill of it. This class of diseases, to which I may also add typhoid fever, yellow fever, and epidemic dysentery, is called *miasmatic-contagious*, a designation which in itself shows that the generally accepted classi-

fication of infectious diseases does not yet include the true nature of the processes. Added to this is the fact that the group of miasmatic-contagious diseases is by no means small, and before very long we shall have to decide whether to include in it diseases which, heretofore, we did not know whether to call contagious or miasmatic, as, for instance, cerebro-spinal meningitis, erysipelas, mumps, acute articular rheumatism, lobar pneumonia, etc.

The names of the various diseases I have mentioned, gentlemen, will at once suggest to you the great variety of infectious processes which exist. The consideration of each would fall, however, under the domain of special pathology. All that interests us at this point is the fact that, in so many of them, inflammation plays such an important part. Erysipelas and epidemic meningitis are such typical inflammatory processes, that it is impossible, on anatomical grounds alone, to distinguish them from non-infectious inflammations of the skin and pia mater; and even where the chief symptoms of an infectious disease are not of an inflammatory nature, it is, nevertheless, nothing uncommon for intercurrent inflammations to occur; thus, the abscesses in pyæmia, and the numerous inflammations, both acute and chronic, in syphilis. You see, therefore, that in speaking of the process of inflammation as a whole, we are abundantly justified in seeking for the cause of infectious inflammations, or, from our standpoint, for *the reason why, in infectious diseases, the walls of the blood-vessels are affected.*

If we ask ourselves, then, what the nature of the poison is, I think we may from the first safely say that it does not exist in the vital fluids in a state of solution; for how can we conceive of a poisonous solution attacking the vessels of a certain part of the body only, and those frequently not the ones through which the poison was either originally introduced or finally eliminated? A second weighty factor in this consideration is the one that the different viruses of infectious inflammations, as of infectious diseases altogether, are capable of reproducing themselves to unnumbered multitudes.

As you all know, the contagious matter from the vesicle of cow-pox can be so indefinitely increased, by successive inoculations, that thousands of persons may be vaccinated from what was originally contained in one drop of the fluid. The same holds true of the contagium of measles, of scarlet-fever, of gonorrhœa, of syphilis, and other infectious diseases. What substance, I ask you, gentlemen, is there which, dissolved, should have such a power unknown to any chemical body? Many chemical bodies, it is true, have the property of becoming infinitely divided, as odoriferous substances, for instance, but in such cases the effects become less and less as the division increases. If it, therefore, be no solution, it must be a corpuscular poison which enters the body and increases in it. Already, in 1846, the idea of a *contagium vivum* was broached by Henle; but it met with no general acceptance, because, with the means then at command, the existence of such a body could not be ocularly demonstrated. There is nothing, perhaps, which better justifies the assumption of such a view than the history of trichinosis. In trichinosis we have a disease running a specific and typical course, and which was formerly thought to be and classified as a miasmatic fever. Now we know that trichinæ—highly organized living beings, which are transferred from one animal to another and from them to man—are the cause of the severe inflammations which occur in the muscles of infected individuals. In this case we know exactly the mode of the development of the infecting organism; we know how it is spread from the rat to the pig, and from the latter to man, and in what way the transfer takes place. Is the process any less one of infection on that account? And yet for years it was stoutly maintained that trichinosis was a *parasitic* disease, and that its origin, due to such gross organisms whose presence, if not form, can be seen with the naked eye, could not be compared to the subtle poisons which caused the ordinary infectious diseases.

But, gentlemen, I hope to be able to show you, a little later, that all infectious diseases are parasitic. If all infections depended on such easily seen organisms as the trichinæ, we would not have had to wait till to-day for the demonstration of the parasites. Numerous experiences, as I mentioned to you in the lectures on puriform thrombi and on traumatic inflammations, go to show that we have to seek for our causes among that great family of low organisms, the *Schizomycetes;* and, as a matter of fact, the investigations into the dependence of the infectious diseases on this class of microphytes have, during the last decade, been pushed in a manner which has yielded truly brilliant results.

Before going any further, allow me to draw your attention to a research, dating from this period, which has shed such a bright light on one of the most dangerous infectious diseases, that thereby the comprehension of the nature of all analogous processes has been vastly facilitated. I refer to anthrax, or splenic fever. Ever since the blood of animals affected with this disease has been found to contain hyaline, motionless, rod-shaped bodies, so-called *bacteridia*, or *bacilli*, endeavors have been made to trace a connection between them and it.

Davaine, who as early as 1850 discovered the bacilli, tried by inoculations to show that these were the contagium, and however convincing his experiments appear (and especially striking was the fact that, while the bacilliferous blood of pregnant animals was capable of inoculating, the blood of their fœtuses, containing no bacilli, was entirely harmless), still, other observers could not convince themselves that after every successful inoculation bacilli were found in the blood of the animal inoculated, and yet the blood of the latter still had the power to produce the disease. Furthermore, it was urged, and apparently on good grounds, that anthrax has an undoubted connection with certain telluric conditions, for it occurs endemically in certain localities with a moist soil. All the doubts, however, which still hung about the subject were dissolved, as if by magic, by the researches of Koch, of Breslau. He showed the natural history of the *bacillus anthracis* to be as follows: The rods—the bacilli—multiply with extraordinary rapidity in the blood, and other fluids of the living animal, by elongating and dividing transversely. In the blood of dead animals, or other suitable propagating fluids, the bacilli develop, in the presence of air and between certain limits of temperature, to long, undivided filaments, in each of which a single row of spores makes its appearance. These spores, again, under similar conditions of habitat, air, and temperature, become the original bacilli. Another and very important point which Koch showed was that the life of the bacillus itself is of short and uncertain duration, and that under no circumstances do they live more than a few weeks at the most, and also that comparatively slight changes of temperature, or drying them, or exposing them to the action of distilled water, kills them. The spores, on the contrary, have a remarkable tenacity of life. They may be heated to any temperature below that necessary to coagulate albumen; may be put into a four or five per cent. solution of carbolic acid, or into strong alcohol, or may be kept dried for years, without impairing their power of reproduction.

We may say, therefore, that fluids containing spores are always infectious; whereas fluids containing the rods are only infectious when these are in the stage of active development, consequently, anthrax may be spread in

two ways—in the first place, by a direct transfer of bacilliferous blood, or other fluid from an infected animal, to a cut or abrasion in a healthy animal or man, hence its *contagiousness*. The other way is, that from the bacilli in the blood of dead animals, buried as they usually are in shallow pits in the damp earth, spores are produced which remain capable of development for an almost indefinite period of time. When these, therefore, by being in the grass, or other objects where the cattle feed, gain entrance by slight wounds into the system, the disease is again produced, and in this case really from the soil, that is to say, by a *miasma*.

ORIGINAL ARTICLES.

THE INFLUENCE OF OPERATIONS UPON THE PROLONGATION OF LIFE AND PERMANENT RECOVERY IN CARCINOMA OF THE BREAST.[1]

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THE convictions are steadily gaining ground that carcinoma of the breast is curable, and that it is primarily a local affection, and not the expression of a constitutional taint, dyscrasia, or diathesis. In favor of these views—which are held by Virchow, of Berlin, Billroth, of Vienna, Fischer, of Breslau, Esmarch, of Kiel, Nussbaum, of Munich, Volkmann, of Halle, Kocher, of Berne, Erichsen, Hutchinson, Sir William Gull, Simon, Moxon, Bryant, Arnott, Payne, Green, and formerly by De Morgan and Moore, of London, and by Gross, Parker, Peters, Neftel, Richardson, Moore, and McGraw, of the United States—the course of the disease shows that visceral tumors are preceded by signs of extension of the cellular elements of the growth into the adjacent tissues and by infection of the associated lymphatic glands; and they are, moreover, sustained by the results of surgical interference, the latter of which furnish the motive for this paper.

In view of the inevitably fatal progress of carcinoma of the breast when uninfluenced by operation, the great questions to be considered from the standpoint of pathological histology are, whether the knife prevents, first, local dissemination; secondly, lymphatic involvement; and, thirdly, the development of metastatic tumors?

1. The answer to the question—does surgical intervention prevent the invasion of the skin, connective tissue, muscles, and walls of the chest?—should be affirmative in a certain proportion of instances. Observation during life and during operations indicates that the adjacent tissues are infected in 90.82 per cent. of all instances; while of 395 cases in which this point could be traced, there was local recurrence, after removal, in 315, or 79.74 per cent. Hence extirpation precluded continuous invasion of the surrounding tissues in 10.08 per cent. of all cases, a proportion which approximates that of the permanent recoveries, as we shall see presently.

2. In regard to the second question—does extirpation prevent infection of the associated lymphatic glands?—the reply must be that it certainly does. Thus, of 657 cases, glandular implication was witnessed in 422, or 64.23 per cent., when the patient first came under observation. In all the axillary glands were enlarged, and along with these the supraclavicular glands were involved in 27, the infraclavicular in 5, and the cervical in 3. Of 114 operations in which this point is noted, the recurrent disease was seated in the glands in 46, or 39.31 per cent., or in 24.92 per cent. less than when the affection was not influenced by interference; and the fact is noteworthy that the glandular recurrence was more frequent by 19.64 per cent. when the breast alone was removed than when it was extirpated with the glands.

3. In replying to the third question, it should be remembered that metastatic tumors are not always developed. Thus, of 740 patients dead of carcinoma, in whom the disease pursued a natural course, or who had submitted to operation, contamination of the viscera was discovered in 303, or in 40 per cent., so that more than one-half succumbed from the intensity of the local disease and the pernicious effects exerted upon the general nutrition through the loss of blood, offensive and exhausting discharges, and suffering. Of the entire number, in 252 the case was not influenced by operation, and metastatic growths were found in 157, or 62.30 per cent., while of the 488 subjected to the knife, the disease had extended to the viscera in only 146, or 30 per cent. As the course of the disease when left to itself shows that metastases are absent in 37.70 cases out of every hundred, and as they are wanting in 70 out of every hundred of the patients dead after operation, it follows that operations prevent implication of the inner organs in 32.30 cases out of every hundred.

Having thus seen that local extension, reproduction in the glands, and the formation of metastatic tumors may be obviated by the removal of the breast, we are justified in inferring, first, that life may be prolonged, and, secondly, that a permanent recovery may be effected by surgical intervention.

1. In regard to the first deduction—namely, the extension of life—an analysis of 67 cases which pursued a natural course, indicates that the average life was 27 months. Of 224 patients, on the other hand, who died after interference with local or general reproduction, the average duration of life was 39 months; so that extirpation adds one year of life.

2. The question of permanent recovery after operation must be based upon the study of the typical course of the affection, which demonstrates that certain events which happen at certain times should determine the date at which a cure may be regarded as being assured. Volkmann[1] states that "if a year has elapsed after operation, and the most careful examination fails to detect evidences of local recurrence, enlargement of the glands, or visceral implication, we may begin to hope that a permanent result will be attained; and that a cure is generally assured if two years have elapsed, while it is rendered almost certain after the expiration of three

[1] Read before the New York Academy of Medicine, January 19, 1882.

[1] Beiträge zur Chirurgie, 1875, p. 325.

years." As I have pointed out elsewhere,[1] the average date of death from metastases is 31.2 months; and that local reproduction is witnessed in only one case out of every two hundred, after the expiration of three years. Hence, I assume, with Volkmann, that the result may be said to be final if the patient survives over three years without local or general recurrence after the last operation, or has died of some intercurrent malady under the same conditions. Of 524 cases of scirrhous, medullary, colloid, and atrophying carcinoma, in which the result is known, 57, or 10.87 per cent., or 1 in every 9.19, fulfilled these requirements, 53 being still alive at the date of the last reports. The average duration of life after operation was six years and five months, and the disease had existed, on an average, for seventeen months and a half before surgical intervention, so that the average duration of life was seven years and ten months. Of the cases which ran a natural course, only 1.5 per cent. survived six years; while of the cures, 31.57 per cent., or nearly one-third, were free from disease after the expiration of six years. In speaking of the duration of life after operation, Sir James Paget[2] says: "I am not aware of a single clear instance of recovery: of such recovery, that is, as that the patient should live for more than ten years free from the disease, or with the disease stationary." Applying this severe test, I find that 10, or 1 in 5.7, fulfilled this requirement, 4 being free from recurrence for between ten years and one month and ten years and ten months, 2 for between eleven years and two months and eleven years and nine months, 1 for twelve years, 1 for thirteen years and eight months, 1 for fourteen years and seven months, and 1 for fifteen years and seven months.

In connection with the 57 cures, there are several interesting points which are of the first importance in influencing the prognosis after operation. In 9 instances there was repullulation. In 6 there was one recurrence; in 2 there were two reproductions, respectively, in twelve months and four years; and in 1 there were three recurrences in four years. In these three cases the subjects were free from disease for three and a half, four and a half, and twelve years after the last operation; so that, as in sarcoma of the breast, recurrent tumors should be freely extirpated as soon as they appear.

Another practical point is that glandular implication is not a bar to operation. In 18, or nearly one-third, of the 57 permanent recoveries, infected axillary glands were removed, and in several of these cases there were nodules in the skin, and the upper layer of the great pectoral muscle was excised. Even if the glands be permitted to remain, it does not follow that the progress of the disease may not be arrested, as their enlargement may be due to irritative hyperplasia and not to carcinomatous degeneration. In 3 cases in which they were not interfered with the patients were free from recurrence, respectively, for five years and nine months, six years and one month, and ten years and ten months. Other interesting points in regard to the prognosis after operation are that recurrence is more frequent in the axilla, by 11 per cent., when the breast alone is amputated, than when the glands are simultaneously removed, and that reproduction takes place four months earlier after the former than after the latter procedure.

In this connection I may call attention to the fact that absence of glandular implication does not afford an absolute guarantee that secondary deposits are not already present in the viscera, since in one example out of every eight metastatic tumors are formed without the intervention of infected glands.

In the final cures the operation was practised when the affection had already existed, on an average, for seventeen months and a half, or when the skin, the connective tissue, and the lymphatic glands are usually implicated. Hence, it was not performed early, or at a period which is best fitted for insuring immunity from reproduction; nor was it by any means always complete. Thus, of 53 cases in which the extent of the operation is noted, the breast was amputated in 25, the breast was amputated and the axilla was cleaned out in 16, the tumor alone was extirpated in 10, and extirpation, with the removal of infected glands, was practised in 2. The disease had been observed for twenty-six months, and the recovery averaged six years one month and fourteen days, for the amputations of the mamma; it had existed for seventeen months, and the cure had lasted for five years and eight months, for the amputations of the mamma and removal of the glands; and its duration before operation was nine months and thirteen days, and the average life afterwards was five years, eight months, and seven days for the partial operations. Of the 53 cures, the 16 in which both the breast and the glands were removed are alone to be regarded as having been subjected to radical operations, since every possible source of local and general recurrence should be gotten rid of to constitute a thorough operation; and I now make it a rule to amputate the mamma with its investing fat and skin, search for any outlying lobules, dissect the fascia off the pectoral muscle, and open the axilla with a view to its thorough exploration, and the removal of any glands that may have escaped observation previous to interference. If the muscles are infiltrated, they should be cut away with a bold hand, and the wound, especially in the vicinity of vessels, along the lymph sheaths of which extension of the disease not infrequently takes place, should be seared with the hot iron.

If such unexpected results, namely, one cure out of every nine operations and one-fifth, are attainable by procedures of which seven-tenths must be regarded as inadequate to remove all affected tissues, what degree of success may we not reasonably expect from early and radical measures? As soon as women have learned that a permanent recovery may be anticipated when the disease is in its incipiency, they will apply sooner to the surgeon for relief, and there is every reason to believe that the ratio of cures will be greatly increased.

The results that I have indicated—and they are derived from the recent and trustworthy statistics

[1] A Practical Treatise on Tumors of the Mammary Gland, p. 164.

[2] Lectures on Surgical Pathology, 3d ed., p. 649.

published by Winiwarter,[1] Oldekop,[2] Henry,[3] and Estlander,[4] have not been attained without a very considerable mortality, since of the 602 operations, 104, or 17.27 per cent., were fatal from the immediate effects of interference. The rate of death is about 10 per cent. for partial operations; 7.69 per cent. for amputation of the breast, and 23.10 per cent. for amputation of the mamma and extirpation of the glands. Hence partial extirpations should be discarded, as they are more fatal, possibly from aiming at primary union, than removal of the entire breast, and as they hold forth little prospect for permanent recovery. The reason for the excessive mortality when the mamma and axillary glands are removed is to be found in the defective manner in which the axillary wound was managed in a large proportion of the cases. Thus of 187 operations of this description—and they constitute 68 per cent. of the entire number—Billroth[5] lost not less than 40, or 65 per cent. of the entire number of deaths, of which 25 were due to pyæmia and septicæmia, which were frequently combined with hæmorrhage from the axillary vessels, 3 were due to hæmorrhage alone, 11 to erysipelas, and 1 to pneumothorax from opening the pleural cavity. Instead of trusting to ligation of the divided veins, against which his early teachings had prejudiced him, he resorted to plugging the wound; but he states that since he has found that veins may be tied with impunity his results are improving. In the future I believe that the mortality from radical procedures will not reach 10 per cent., since of 17 cases—15 of which occurred in hospital practice—in which I amputated the entire breast and its coverings, removed the pectoral fascia, and opened the axilla, I have lost only one, the subject having been a fat woman, who was impressed with the idea that she would not recover. In 14 of these cases infected glands were extirpated, and in 3 large portions of the pectoral muscles were cut away.

From all the data contained in the paper, I believe that I am warranted in framing the following practical conclusions:

1. That surgical intervention in carcinoma of the breast tends to retard the progress of the disease by preventing local dissemination, implication of the associated lympathic glands, and the development of visceral tumors.

2. That local reproductions do not militate against a permanent recovery, provided they are freely excised as soon as they appear; and that lympathic involvement does not forbid operation, since infected glands were removed in more than one-third of the examples of final cure.

3. That the subjects are almost without exception safe from local and general reproduction if three years have elapsed since the last operation.

4. That the risk from operations is outweighed by the benefits which accrue from them, since they not only add twelve months to life, but also cure more than one-half as many patients as they destroy.

5. That all carcinomata of the breast, if there are no evidences of metastatic tumors, and if thorough removal is practicable, should be dealt with as early as possible by amputating the entire mamma and its integuments, dissecting off the subjacent fascia, and opening the axilla with a view to its exploration and the removal of any glands which were not palpable prior to interference.

[1] Beiträge zur Statistik der Carcinome, Stuttgart, 1878.
[2] Langenbeck's Archiv., Bd. xxiv, pp. 536 and 693.
[3] Statistiche Mittheilungen über den Brustkrebs, Breslau, 1879.
[4] Revue Mensuelle de Médicine et de Chirurgie, 1880, p. 585.
[5] Chirurgische Klinik, Wien, 1871–76, p. 268.

ON THE

TREATMENT OF POSTERIOR HYPERTROPHY OF THE INFERIOR TURBINATED BONES.[1]

BY FREDERICK I. KNIGHT, M.D.,
INSTRUCTOR IN LARYNGOSCOPY IN HARVARD UNIVERSITY.

WITHIN the memory of even the younger members of this Society, nasal catarrh was one of the "opprobria medicinæ." The physician felt annoyed at being asked to prescribe for it, and perhaps almost vexed with his patient for having such a thing. The patient deriving no relief from sniffing up salt water or chlorate of potash solution, soon took to empirical remedies, and the worst sufferers have usually faithfully tried all the vaunted specifics in turn.

Little real advance was made in the knowledge and treatment of this affection until the discovery of the use of the laryngoscope led to the illumination of the post-nasal region, and to the study and treatment of the upper air passages as a specialty. This special study has led to the knowledge that, as in the urethra, so in the nose, a catarrh is often kept up by a stenosis. Among the most common causes of obstruction of the nares, is hypertrophy of the turbinated bones, especially the inferior. This is, strictly speaking, an hypertrophy of the mucous and sub-mucous tissues, and not of the bone itself. Another common cause of obstruction, and of the continuance of a post-nasal catarrh, is hypertrophy of the adenoid tissue at the vault of the pharynx. Both of these forms of hypertrophy also very seriously affect the quality of the voice.

The removal of these hypertrophies constitutes one of the greatest advances yet made in the treatment of the affections of this region. Of the treatment of adenoid hypertrophy at the vault, I shall not now speak.

The hypertrophy of the mucous membrane of the turbinated bones may involve the whole bone, or may occur almost or quite exclusively on the anterior or posterior portion.

The anterior form is more accessible and earlier received successful treatment. In regard to it, I will merely say that if the hypertrophy is considerable, in whatever way done, whether by cutting or tearing or cauterization, the treatment of the redundant tissue must be *destructive*. Pressure and other means of producing absorption may give temporary relief, but in no way approximate a cure.

The special topic which I wish to introduce tonight is "Posterior Hypertrophy of the Inferior

[1] Abstract of a paper read before the Boston Society for Medical Observation.

Turbinated Bones," which requires different treatment from the anterior form. The hypertrophy here occurs in the mucous membrane, and in the erectile tissue of Bigelow, which is situated between the mucous membrane and the bone.

The symptoms produced by this condition are:

1. Obstruction to nasal respiration.

This may be so complete as to necessitate breathing through the mouth, with its well-known discomforts and evils.

2. Difficulty of removing catarrhal secretion, either by blowing the nose or by means of the douche or syringe.

3. Serious modification of the voice, production of the obstructed quality usually improperly called nasal.

4. Deafness produced either by direct pressure upon the orifice of the Eustachian tube, or by keeping up the catarrhal condition in the neighborhood.

5. Impairment of the sense of smell, although the olfactory nerve is not distributed to this bone, by stopping the draught through the nose, which seems to be necessary for the enjoyment of this sense, and indirectly by keeping up a catarrhal condition of the other bones and septum narium.

The only treatment which has proved at all efficacious for the removal of this condition, has been such as would actually remove a considerable portion of the hypertrophied tissue. Touching the posterior ends of the bones with nitrate of silver, fused on ingeniously devised instruments, with the aid of the rhinoscopic mirror, was a delicate operation, but did little permanent good. It gave, perhaps, a little temporary relief by a superficial action on the mucous membrane. Tearing away the mucous and sub-mucous tissues by means of strong forceps was a more efficient, but a very painful and barbarous, operation. The use of strong acids and the galvano-cautery are dangerous, on account of the proximity of the Eustachian tube and middle ear, and serious results have been reported from the use of the latter in this region.

The best instrument yet devised for the removal of this posterior hypertrophy of the turbi-

nated bones, is the wire snare of Dr. Jarvis, of New York, and made by Caswell, Hazard & Co. This instrument consists of two metal canulæ, the shorter sliding freely upon that part of the longer next the operator. The surface of the main canula occupied by the secondary one, is threaded for the movement on its surface of a milled-nut. No. 5 piano wire, which is very strong and capable of cutting through the hardest tissues, is passed through the main canula and attached to two pins on the proximal end of the smaller one. A slight indentation upon the small canula fits a corresponding surface on the large one. This arrangement prevents rotation of the secondary canula, and so overcomes the tendency of the wire to twist and become loosened from its attachment to the growth. The nut, when turned, pushes the outer canula before it, and thus draws home the wire noose in the inner.

Dr. Jarvis gives the following directions for its use: If there is difficulty in getting a good view of the parts on account of the tendency of the patient to gag, the soft palate may be tied up by means of a tape passed through the nares. Giving the wire loop a twist towards the side of the nose occupied by the growth, it is fixed by a turn of the nut, and passed into the nostril. The rhinoscopic mirror being held in one hand, the position of the wire loop in the posterior nares is carefully watched while it is steadily advanced with the other hand, until it is seen to encircle the growth. The tip of the wire loop has already by excavation been made to assume a point considerably to one side of the axis of the main canula; hence firm pressure is exercised upon the anterior part of the base of the growth by the end of the canula, and at the same time the apex of the wire loop is pressing firmly on its posterior border. On drawing the wire home, the tissue is cleanly divided, and, if not too large to pass through the nares, it will generally be drawn out clinging to the snare. Traction should be made very slowly, stopping at short intervals, in order that the hæmorrhage may be as little as possible.

Several questions will present themselves to one about to use this instrument for the first time:

1. Is there any danger, after having engaged a mass of tissue in the loop, of being unable to complete the operation, in other words, of getting stuck? It at once occurs to the mind that you can't go backward; can you always go forward? It seems as if there ought to be no difficulty of this kind; the wire is very strong, and in one case Dr. Bosworth cut through a hard fibrous tumor with it. Yet some gentlemen have found this difficulty, and their cases should be reported, in order that the least trouble may be recognized and guarded against. It would be a very awkward thing for the wire to break in the canula, or anywhere except at the apex of the loop; but if fresh wire is used, this is not likely to happen, for the wire is very tough.

2. How much pain is caused by the operation? Dr. Jarvis sets it down as very little. In my experience, after the introduction of the instrument, which is naturally somewhat painful, there is pain only when the screw is turned, then it is considerable. It is no more, however, than a patient who has suffered obstruction, will willingly stand to get rid of it.

3. How much hæmorrhage follows the operation? If only a few turns of the nut are made at once, so that an hour or two are consumed in the operation, the hæmorrhage is usually slight; if, however, the

operation is hurried, it may be profuse. If the palate is tied up previous to the operation, the tape could be used for drawing a plug into the posterior nares, if this should be deemed necessary. To illustrate this method of treatment, I will make a brief report of a case:

Miss A., a singer and teacher of singing, had suffered from post-nasal catarrh and obstruction for three years, the symptoms being much worse when the wind was east, and least troublesome in a south wind. The presence of flowers, especially of roses, excited violent fits of sneezing. The sense of smell was lost.

I have seen Miss A. at various times during the past three years, and prescribed various remedies for the relief of her symptoms. Last summer she appeared suffering from so much nasal obstruction as to very seriously affect the quality of the voice. On examination of the posterior nares I found them completely blocked by swelling of the turbinated bones, especially the inferior. There was also swelling of the mucous membrane of the septum.

It seemed imperative to undertake some radical treatment. I accordingly extirpated the posterior part of both turbinated bones, at different sittings, by means of the Jarvis snare.

With the first operation there was considerable hæmorrhage, the wire having been drawn home too rapidly, only twenty minutes having been consumed. At the second operation considerably more time was allowed, and the bleeding was much less. The relief to the breathing was immediate.

Recently the patient has experienced some obstruction from swelling of the posterior ends of the *middle* turbinates, which will probably require the same treatment.

A CASE OF POISONING BY SULPHATE OF MORPHIA TREATED BY ATROPIA.

BY C. F. KING, M.D.,
OF MANDAN, DAKOTA TERRITORY.

FRANKIE M., one of the "demi-monde," took fifteen grains of the sulphate of morphia with suicidal intent. I saw her about one hour after; symptoms as follows: Pulse very feeble and rapid, respirations labored and stertorous, pupils contracted. I at once gave her ten grains of sulphate of zinc, which produced free emesis. I then gave a large quantity of warm water and commenced walking her, and in about forty minutes gave her another dose of zinc, by which means I thoroughly washed out the stomach. About this time the lips became cyanotic, and there was complete insensibility, and the surface of the body was cold. I then gave, hypodermically, one-tenth of a grain of sulphate of atropia, and in about thirty minutes one-fifth of a grain more. The cyanosis soon disappeared, the pupils enlarged, the body became warm, and the respirations quite easy and natural, and I left her, about four hours afterward, resting quite comfortably. She made a good recovery, and thirty-six hours later was walking the street.

The treatment in this case was certainly heroic, but the condition of the patient seemed to demand it, and the result justified it. I have no knowledge of any case in which such large doses of atropia were administered.

HOSPITAL NOTES.

THE WESTERN PENNSYLVANIA HOSPITAL.

Service of W. H. DALY, M.D.

A CASE OF AGGRESSIVE MANIA, CONNECTED WITH PERSISTENT HIGH TEMPERATURE, IN TYPHOID FEVER, SUCCESSFULLY TREATED WITH THE COLD BATH.

KATE L., a stout, dark-complexioned Irish girl, an employé in the hospital laundry, engaged chiefly in washing the linen of typhoid patients, was brought into one of the wards with typhoid fever. In due time the "rose spots" made their appearance on the abdomen, sordes upon the teeth, dull, dusky countenance, diarrhœa (involuntary), and mental stupor. Temperature, 105; pulse, 130; respiration normal. No chest complications. Abdominal iliac tenderness, gurgling.

Treatment by four-drop doses tinct. aconite root and ten drops of iodine solution every three hours (10 grs. ad ℥i glycerin), with cold sponging. Under this treatment the pulse varied but little, and the temperature fell to about 104⅘ in evening, and was little below that in the morning, as shown by the temperature cards, and the mental stupor was superseded after five days by a maniacal condition of the most aggressive character and utter insomnia, notwithstanding the careful administration of thirty-grain doses of the bromide of potassium for the first day or two, until refused by the patient, who did not sleep for seven days and nights, the maniacal excitement consisting of biting the nurses who attempted to restrain her, wrenching the arm of one of the nurses, causing subluxation, throwing tumbler or pitcher at the attendants, absolutely refusing food and drink. The utter impossibility of nourishing, restraining, or keeping this patient clean, what with the involuntary alvine and urinary discharges and her constant maniacal condition, a straight-jacket was put on, and afterwards a broad soft belt around her trunk, with wristlets, and all fastened to the bed. Nourishment per enemata was not retained, nor were medicines, and the temperature keeping up with the pulse, she was fast exhausting herself. The prognosis concurred in by the house staff and Dr. Daly was that death must supervene before many days.

Hers was a case essentially proper to be treated by the cold bath, which was suggested and called into effect. The patient was placed in the bath at 98°, and during ten to fifteen minutes it was lowered to 50° or 40°, without at first having any perceptible effect upon the temperature more than a reduction of one and a fraction of a degree for the first week, but the patient slept a short time after each bath, given every three to six hours, according to exigencies. After six or seven days' persistent effort of this kind, the rectum was more retentive of nourishment. No medicines whatever were given, even by the bowel, after the baths were begun, and for two weeks no food was taken by the mouth. The aggressive mania returned regularly after the soothing effect of the bath wore off, and the rest and quiet as invariably followed the cold bathing.

The girl is now well, after about two months' illness, and able to leave the hospital.

Remarks.—This case occurring in a strong, young girl of nervo-sanguine temperament, and with all the typical conditions of typhoid fever, contracted doubtlessly from constant employment in washing the linen and clothing of other typhoid patients, was thoroughly saturated with the most virulent form of the "causis morbi," hence, with this persistent high temperature, the superheated blood being pumped rapidly through the brain, was probably all-sufficient to cause the maniacal demonstration of so persistent a character.

In the service among the typhoid fever cases serious

lung complications are the only conditions contraindicating the use of the cold bath in high temperature.

WORKHOUSE AND ALMSHOUSE HOSPITALS, NEW YORK.

CASE OF DERMOID CYST OF AN UNDESCENDED OVARY.

(Under the care of R. VAN SANTVOORD, M.D., Visiting Physician to the Hospitals.)

THE following case is of sufficient rarity to be worthy of record:

In August, 1881, my attention was called to a woman, aged fifty (?) years, who had been admitted to the hospital on the previous day, suffering from some acute febrile disease. During the examination a tumor was felt in the abdomen, about two inches to the right and above the umbilicus. It seemed to be about as large as a fist, but could not be satisfactorily defined, owing to coexisting tympanitis. On palpation, a distinct and peculiar crepitation could be felt. Nothing was known of the history of the patient previous to the present illness.

The patient was rapidly sinking at the time of the examination, and died about twenty-four hours after it. On autopsy, the cause of death was found to be acute lobar pneumonia, involving the upper part of the left lower lobe. On opening the abdomen, a tumor with a smooth surface was seen projecting above the intestines in the position above indicated. The distended colon partly covered it in on the right side and above. The small intestines were crowded to the left and downward. On drawing back the intestines an oval tumor, about 6½ inches long and 3½ to 4 inches in diameter, was seen lying between the spinal column and the right kidney. The right Fallopian tube passed vertically upward from the uterus to the lower end of the tumor, with which what was evidently its fimbriated extremity became fused. There was no normal ovary on the right side. The os uteri showed the usual slight bilateral laceration indicative of former pregnancy. The uterus, left ovary, and Fallopian tube presented nothing abnormal. The tumor was behind the peritoneum. There were no adhesions to it of the surrounding viscera. It was attached over a considerable area of its posterior surface to the posterior wall of the abdomen by loose areola tissue. On section the walls of the tumor were found to be extensively calcified. A quantity of yellow, fatty fluid escaped, which quickly solidified to the consistency of butter. Several masses of long, light-colored, fine hair, matted together, were found. There were also fatty masses, probably made up of hair, epithelium, and fatty matter, more or less closely adherent to the inner surface of the cyst. This inner surface was covered with fully-developed cuticles. No other abnormalities were observed in the abdomen.

The location and anatomical relations of the tumor make it evident that it was to be regarded as a *dermoid cyst of an undescended ovary*.

Remarks.—According to Peaslee, three-fifths of all dermoid cysts are ovarian (129 out of 188 cases). He does not mention that any of these occurred in an *undescended* ovary. He refers to T. Safford Lee and J. F. Meckel (Peaslee on *Ovarian Tumors*, first edition, p. 84) as recording cases of dermoid cysts found "behind the peritoneum upon the posterior muscular walls of the abdomen." It seems possible that these cases might have belonged to this category. Schroeder (*Ziemssen's Clyclopædia*), Wells, Thomas, and Emmet make no allusion to the occurrence. Atlee (*Ovarian Tumors*, p. 188) records a post-mortem examination of a case of dermoid cyst, ten inches in diameter, "occupying mainly the umbilical region," and imbedded in folds of large intestine. All the surrounding viscera were closely adherent to it. No connection with the uterus could be traced, but from the absence of the left ovary in its normal position, it seems fair to presume that it was ovarian, and that its uterine connections had been overlooked, owing to the visceral adhesions. Atlee regarded the case as unique.

MEDICAL PROGRESS.

A RARE FORM OF PREGNANCY.—In a recent number of the *Archiv für Gynäkologie* a case is recorded which, on account of its exceeding rarity, deserves notice. It occurred in the clinique of Prof. LITZMANN, of Kiel, and is reported by Dr. WERTH. It was one of pregnancy in the imperfectly developed horn of a bicorned uterus, the fœtus, fully developed, being retained beyond the full term. The patient was thirty-nine years old, and had had two children. She last menstruated in December, 1878. Fœtal movements were felt about the end of May, 1879. In the latter end of October the fœtal movements were unusually vigorous, and then ceased. Then came pain; and at the end of November, feverishness, sanious vaginal discharge, and wasting. She was taken into the hospital, and as, on examination, the os uteri was found large enough to admit the finger, and the fœtal head could be felt within it, the diagnosis was made that it was a case of retention of a dead child in the uterus. On February 14, laparotomy was performed: a decomposing, but fully developed, child was removed, and then the sac, at first supposed to be the uterus, which had contained the fœtus, was extirpated. On examination this sac was found to have only one set of uterine appendages. The patient died on the 16th from peritonitis. It was then found that the uterus was bicorned, the fœtus having developed in the right horn. The right kidney was absent. A corpus luteum was present in the right ovary. The author has only been able to find one case on record which at all resembles this, viz., one published by Turner.[1] We may add that Dr. Barnes (in his work on Diseases of Women) has hazarded the speculation that many cases reported as extra-uterine gestation, in which fœtal bones, etc., were discharged per vaginam, were really cases like this one.—*Med. Times and Gazette*, Dec. 3, 1881.

CONTUSION OF THE TESTICLE.—From an elaborate article on this subject by Profs. MONOD and TERRILLON, the following conclusions are drawn:

1. Contusion of the testicle is frequently followed by transient pains, without any appreciable local lesion, and without subsequent inflammatory reaction.

2. When the contusion is more severe, incontestable material lesions are produced in the parenchyma of the testicle, which may give rise to a more or less severe inflammatory reaction, leading, generally, to atrophy of the organ, or, more rarely, to suppuration.

3. It may then be said that traumatic orchitis is most frequently an atrophic orchitis, with a consequent grave prognosis as to function. Three degrees may be recognized: The first is characterized by simple hæmorrhages into the cellular tissue; the second by hæmorrhages corresponding to rupture of the semeniferous tubules; and the third by rupture of the albuginea, with escape of the tubules into the vaginalis; this form is accompanied by crushing of the testicle.

4. Atrophy is particularly frequent in youth; suppuration in the aged and debilitated.

5. The epididymis may be affected at the same time as the testicle, but it shows less tendency to atrophy.

[1] On Malformation of the Organs of Generation. Edinburgh, 1866.

6. The peripheral lesions, whether located in the vaginalis or in the periepididymal cellular tissue, often mask the original injury, and are frequently a cause of error.

7. The frequency with which orchitis follows contusion has been greatly exaggerated. It is frequently confounded with urethral orchitis; careful examination of the urethra will enable this error to be avoided.

8. Certain forms of orchitis, depending upon diathesis, are often wrongly attributed to a traumatism; the injury can, however, in such cases, prove the determining cause, as, for example, a contusion can render evident a tubercular or syphilitic affection of the testicle in persons affected with these diatheses, or can hasten the development of tubercle which had been previously latent.—*Arch. Gén. de Méd.*, Dec., 1881.

TREATMENT OF TONSILLITIS AND HYPERTROPHY OF THE TONSILS BY BICARBONATE OF SODA.—Dr. ARMANGUÉ reports in *Revue de Thérapeutique* seven cases of tonsillitis cured in less than twenty-four hours by the bicarbonate of soda. This method of treatment was introduced by Dr. Giné, Professor of Clinical Surgery, who employed bicarbonate of soda locally either by insufflation, or directly applied by the finger of the patient. The applications should be frequently repeated until the disease disappears. Dr. Giné relates dozens of cases in which a cure was accomplished in less than twenty-four hours, and has never seen this method fail to produce a good effect. The alleviation is almost always immediate, and is never long delayed. Its efficacy is especially marked in the prodromic period of tonsillitis, when it will invariably abort the disease. According to Dr. Giné, bicarbonate of soda does not diminish the predisposition to anginas, but only arrests their development. Excision of the tonsils is a useless operation in cases of hypertrophy of the tonsils, since the hypertrophy can be rapidly removed by frequent applications of the salt of soda.—*L' Union Méd. du Canada*, Dec., 1881.

HYSTERIA IN CHILDHOOD.—SCHMITT (*Ann. Univ. di Med. et Chir.*) confirms the existence of hysteria in children, as is admitted by numerous authors, and reports several cases seen in the clinic at Strasbourg:

1. A case of hysterical aphonia in a little girl aged seven years, and cured by the simple introduction of the laryngoscope.

2. A case of a little girl thirteen years of age, who had not yet menstruated, and who had for nine months been unable to swallow; she was cured by a single catheterization.

3. A case of an anæmic and badly-nourished little girl aged nine years, with convulsive and maniacal hysteria, which resisted all treatment.

4. A case of a little girl nine yeas old, who had a hysterical contracture, and was cured by moral treatment.

As causes of this rare disease, the author indicates anæmia, chlorosis, and inherited nervous temperament. The general condition of the patient must be improved before any treatment is attempted.—*L' Union Méd.*, Nov. 27, 1881.

MULTILOCULAR CYST OF THE KIDNEY—EXTIRPATION—DEATH.—In the *San Francisco Western Lancet*, November, 1881, there is a report of a case in which Dr. O. O. BURGESS found, on examination, a large indistinctly fluctuating tumor just below the margin of the liver. There were no symptoms of renal or hepatic trouble, nor had any been present previously. As the tumor gradually increased in size, and the patient became exhausted by the increasing pain, the cyst was aspirated, and about a pint of liquid removed. The next day the tumor was as large as ever, and was again tapped, with the same result. There being considerable difference of opinion as to the diagnosis, and the patient rapidly failing, it was determined to make an exploratory incision. This revealed the true nature of the growth, which was removed with some little difficulty. Death resulted from shock thirty hours after the operation.

From a letter from Dr. Burgess to the Editor of the MEDICAL NEWS, we definitely learn that "no apparent trace of the right kidney, in which the multilocular cyst had been developed, could be detected, either during the operation or after death. The organ, as such, was lost in the development of the cystic disease. The fact that several small renal concretions were found in the cysts was accidentally omitted from the published report. This fact seems to me of some importance in its possible relation to the causation of the disease."

FIDDLE-STRING AS A BOUGIE.—Dr. F. E. DANIEL, of Jackson, Miss., failing in a case of very tight stricture to get in the smallest ordinary bougie, used in the emergency a small *fiddle-string*. This passed in readily. Being withdrawn in a few minutes, it was found to have swollen to nearly twice its previous size. A larger one was then passed and allowed to remain fifteen minutes; this being then withdrawn, the urethra was sufficiently dilated to get in a No. 4, then a No. 6 bougie, and finally a flexible Nélaton's catheter, threaded on a fiddle-string. A second case was equally satisfactory. Dr. D. claims for the fiddle-string (catgut) cheapness, simplicity, availability, harmlessness, strength, and rapid expansion.—*Maryland Medical Journal*, Dec. 1, 1881.

SECONDARY ANEURISM OF THE RADIAL ARTERY.—In the St. Louis *Courier of Medicine* for Dec., 1881, Dr. T. J. TURPIN reports the case of a negro, aged forty-five, who had applied, in March, 1873, for treatment of an aneurism of the radial artery. The aneurism was situated about one inch above the wrist-joint, and was about the size of a partridge egg. All the diagnostic points of aneurism were unmistakably present. The patient was a carpenter by trade, and a man of very intemperate habits. Nothing was done at the time beyond directing the man to give up his work for the time being and endeavor to reform his intemperate habits. It so happened that the patient was not seen again for several months, and then the aneurism had undergone a spontaneous cure, which was complete, no traces of the aneurismal sac remaining. Early in the spring of the present year (1881) the aneurism recurred at the identical spot on the same artery, attaining a larger size than the previous one. Digital compression, not complete, but so as to mitigate the volume and force of the blood, was employed, when the aneurism rapidly disappeared, and in a few weeks no trace of it remained. The patient works steadily at his trade, and has discontinued his drunken habits for over three years.

The points of interest in this case are:

1. The extreme rarity of the morbid condition, being the third "unequivocal" case upon record.

2. The length of time which elapsed before the recurrence of the disease, viz.: eight years.

3. The facility with which a cure was effected, notwithstanding the long-continued use of alcoholic stimulants militated against the probability of such a result.

BILIARY FISTULÆ.—A curious example of multiple biliary fistulæ has been communicated by KOSACH to the Medical Society of Cologne. The cystic duct was completely obliterated. The gall-bladder, in conse-

quence apparently of the irritation of biliary calculi, had contracted adhesions to the duodenum, with which it communicated by a large fistulous opening. Near this was another opening by which the gall-bladder communicated with the colon. A third fistula existed between the duodenum and the colon. The common bile-duct was distended, and its cavity obliterated, by two biliary concretions. These lesions were not suspected during life. The woman presented no jaundice, in spite of the closure of the ducts, on account of the free passage for the bile into the intestine. She had never suffered from hepatic colic. The chief symptom was constant diarrhœa, which caused fatal exhaustion, in spite of a "canine appetite," which she strove unceasingly to satisfy.—*Lancet*, Dec. 3, 1881.

THE BLOOD IN CHLOROSIS AND PREGNANCY.—From the examination of the blood in twenty-two cases of pregnancy and in seven of chlorosis, made with Hayem's chronometer, Dr. FREDERICK WILLCOCKS draws the following conclusions:

1. That a more or less considerable diminution of hæmoglobin is found in both pregnancy and chlorosis, especially in the latter, but that beyond this fact no obvious analogy exists between them.

2. That in pregnancy the diminution of color is due to a fall in the number of red cells, and that the individual cell remains of high value. In chlorosis both the cells and the individual value are reduced, the latter being in excess of the former.

3. That the blood-state of healthy pregnancy is due to a large relative increase in the water of the plasma, and that this condition does not constitute a true anæmia, but is due to the progressive enlargement of the vascular area during pregnancy.—*Lancet*, Dec. 3, 1881.

TETANUS AFTER OVARIOTOMY.—In the *Lancet* for Dec. 3, Dr. JAS. M. BENNETT reports a case of ovariotomy, in which the operation was followed on the sixteenth day by tetanus. Atropia, quinia, physostigma, chloroform, morphia, and nicotine were used; the patient died on the eighteenth day after the operation.

GASTROSTOMY.—Recently at University College Hospital, London, Mr. MARSHALL performed the operation of gastrostomy upon a man aged sixty-five, who was the subject of malignant disease of the œsophagus, employing a method for which we are indebted to the experimental physiologists. It would be more correct to say that the first step of the operation has been accomplished, but that was by far the most serious step. The stomach was stitched to the abdominal walls by sutures which passed through the peritoneal and muscular coats of the stomach, and through the parietal peritoneum, but did not penetrate the gastric cavity. In four or five days after the date of operation, the final step, which consists in opening the stomach, will be taken; by postponing this, it is possible to maintain the wound in an aseptic condition until after the peritoneal adhesions have become firmly organized.—*British Med. Journ.*, Dec. 3, 1881.

IODOFORM POISONING.—Dr. A. HENRY, who had previously obtained very good results in carious disease by treatment with iodoform dressing, communicates to the *Deutsche Med. Woch.*, No. 34, 1881, the details of two fatal cases of poisoning from the use of iodoform in this way. No other positive cause of death could be discovered on *post-mortem* examination, and in both instances the symptoms presented were typical. The cerebral symptoms were the most prominent, consisting in extreme drowsiness, from which it was difficult to awake the patient, and which eventually ended in coma; there were also paralysis of the sphincters, aphonia, contractions of the muscles of the neck, boat-shaped retraction of the abdominal walls, and a very rapid pulse. Temperature was normal throughout. The only difference between the cases was in the acuteness with which the symptoms set in. In the first case $\frac{1}{300}$ grm. iodoform had been used, the first signs of illness appearing on the second day, and death occurring on the sixth. In the second case $\frac{1}{150}$ grm. iodoform were used, nine days passed, in which the patient was perfectly well; this period was followed by two days of distressing headache; then drowsiness, etc., were noticed, and the patient died on the sixteenth day after operation. *Post-mortem* examination revealed only fatty degeneration of the heart, and parenchymatous disease of the liver and kidneys, as in cases of chloroform poisoning, and in the experiments made on animals by Moleschott, Binz, etc. It remains to be mentioned only that the first patient was a drinker, well-built, and aged fifty-seven; the second was a weakly woman, aged sixty-three.—*Glasgow Med. Journ.*, Dec., 1881.

CONTAGION OF TUBERCULOSIS.—M. TOUSSAINT presented a note on this subject at the meeting of the Académie des Sciences de Paris, held on November 7, 1881. He finds that true tuberculosis, whether in the case of man, the cow, pig, or rabbit, reproduces itself indefinitely with absolutely constant and identical properties, and that it is capable of being transferred from animal to animal without losing its virulence; in fact, it becomes more virulent when often inoculated. At the start it requires four or five months to kill a pig or rabbit with tuberculosis, but with the fifth series, two months are sufficient. If thirty-five days after the inoculation one of the set of animals be killed, and from it a new animal inoculated, the latter will often die with the rest of the series.

It is especially with tuberculosis produced by culture that the greatest increase in virulence is seen. The serous fluid in a caseous gland of a cat dying from a cultivated injection, was inoculated into six rabbits; all became tubercular. Forty days afterwards one was killed; it showed already pulmonary tubercles, with which six rabbits and a pig were inoculated, the latter died in fifty-seven days, and the rabbits in sixty-eight. He has remarked that the fifth series of cultures are always more abundant and rapid than the first, and the tenth more than the fifth.—*Revue Scientifique*, Nov. 19, 1881.

DEVELOPMENT OF A SINGLE BREAST IN GIRLS.—M. DESPRÈS took occasion of the presence of a girl at his clinic to draw the attention of his class to a circumstance that causes alarm to mothers, and is sometimes judged wrongly of even by practitioners. This was an example of the development of only one breast at the age of puberty, when the belief is often entertained that this arises from the presence of a tumor. This girl was thirteen years of age, and was brought to the hospital under the idea that she had a tumor of the right breast, the left one not yet having undergone any change. Her attendant had prescribed iodide of potassium. M. Desprès at once assured the mother that it was only the natural development of the organ, and would be soon followed by the appearance of the menses and the development of the other breast. He observed to his class that while it is natural for mothers to be deceived in these cases, it should be impossible for the surgeon to be so. In fact, there exists beneath the breast a regular prominence in the form of a movable disk on the chest, without the slightest adherence to the skin, and accompanied by no pain whatever. The nipple is exactly in the centre of the tumefaction, and although the developing gland is resistant, it is never irregular, and never presents lumps. A tumor

of new formation, such as a sarcoma, is always harder, and is never found exactly in the centre of the mammary region.—*Med. Times and Gazette*, Dec. 10, 1881, from *Gaz. des Hop.*, Nov. 24, 1881.

POLYSARCIA.—A remarkable case of polysarcia was exhibited at the last meeting of the Paris Academy of Medicine by M. HILLAIRET. The subject is a female child, a little over five years of age, 1 metre 15 centimetres in height, and weighing about 136 lb. The following measurements were taken on November 27: Round the waist at the level of the umbilicus, 107 centimetres; round the chest, 102 centimetres. Circumference of the neck, 37 centimetres; of the arm at the axilla, 35 centimetres; of the elbow, 26 centimetres; of the wrist, 17 centimetres. The upper part of the thigh, the knee, and the instep measured respectively 57, 38, and 25 centimetres. The parents of the child are of average size, and their other three children are not unusually developed. Notwithstanding her enormous bulk she is able to run, and even to jump.—*Lancet*, Dec. 10, 1881.

HERPES OF THE LARYNX.—In view of the rarity of this affection, and, indeed, the doubt expressed by many authors as to its actual existence, the case reported by Dr. GOTTFRIED SCHEFF in the *Allgemeine Wiener Medizinische Zeitung*, November 22, 1881, is of interest. The patient was a man sixty years old; the affection was introduced with fever and isolated areas of redness and swelling of the mucous membrane of the larynx, with burning and stabbing pain, difficulty in swallowing, dry cough, and even, when the swelling was marked, with difficulty in breathing. After three or four days a vesicular eruption appeared entirely similar to the ordinary herpes labialis, and followed an analogous course, with the exception that no crusts were formed after the rupture of the vesicles, the excavation becoming rapidly skinned over. During the stage of inflammation Dr. Scheff used applications of ice, and later merely an expective treatment.

PENETRATING WOUND OF THE AORTA.—At the meeting of the Vienna Gesellschaft der Aerzte, on November 25, Dr. ZILLNER exhibited a specimen of a penetrating wound of the aorta, the man living for sixteen days after, and then dying from pericarditis. The course of the wound ran from underneath the right clavicle, through the pectoralis major and the second intercostal space into the aorta, in which an aperture four millimetres in length, and situated three fingers' breadth above the valves, was visible. The small size of the wound, a considerable atheromatous degeneration of the aorta, the slight retraction of its inner coat, and a possible plugging by the pericardial covering, may perhaps account for the prolongation of life in this case. Prof. Chiari observed that even a spontaneous rupture of the aorta may heal. In 1880, in the Rudolph's Hospital, while dissecting the body of a man who had died of phthisis, he met with a false aneurism of the ascending aorta, with a transverse rupture of the vessel by the side of it, which had healed. —*Wien. Med. Zeitung*, Nov. 29, 1881.

TREATMENT OF BRONCHIAL AFFECTIONS OF PULMONARY PHTHISIS BY AMMONIACAL INHALATIONS.—M. MELSENS highly recommends (*Bull. de l'Académie Belge, et Paris Méd.*, Oct. 22, 1881) the therapeutic employment of ammonia by inhalation in phthisis. Knowing that ammoniacal emanations may be respired without danger, of which the proof is the perfect health of workmen who dig guano, and also knowing the good effects of the air of cow-houses in pulmonary phthisis, effects which are generally with justice attributed to the emanations of carbonate of ammonia generated in these stables, M. Melsens conceived the idea that continuous but moderate respiration of this salt might be useful in other affections of the respiratory organs. He decided, after an attack of acute bronchitis, to make the experiment on himself. For that purpose, he wore outside his shirt a bag containing some pieces of carbonate of ammonia; after some time he was absolutely relieved from the affection; improvement set in from the first day. Several invalids who employed the same means obtained great benefit from it, even in cases of long-continued chronic bronchitis. Amongst others, a physician at Brussels, who had suffered for a long time from an obstinate cough, due to chronic bronchitis, with dilatation of the bronchi, complicated with emphysema, asthma, and sometimes with acute laryngitis. He used the bag of carbonate of ammonia, and found himself perfectly cured.—*London Med. Record*, Dec. 15, 1881.

TRANSFUSION OF BLOOD FOR HÆMORRHAGE IN TYPHOID FEVER.—At the meeting of the Clinical Society of London held on November 25, Dr. MAHOMED read notes of two cases of direct transfusion of blood for hæmorrhage in typhoid fever, in both of which, although ending fatally, there seemed to be marked temporary improvement.

THE TREATMENT OF CHOLERA.—In an article on the cholera epidemics of 1875, '76, and '77, at Damas and French India, Dr. DESPRÈS found the following formula very successful: Chloroform, 1 gramme, or 15½ grains. Alcohol, 8 grammes, or ʒij. Acetate of Ammonia, 10 grammes, or ʒiij. Syrp. of Muriate of Morphia, 40 grammes, or ʒx. Water, 110 grammes, or ʒxxviii. Mix, and take a teaspoonful every half-hour. Under the use of this prescription the mortality, which had been 80 per 100 of cases, was reduced to 28 per 100.

RAPID LITHOTRITY IN CHILDREN.—In the *Allgemeine Wiener Medizinische Zeitung* for November 29, 1881, there are reports of two cases in which litholapaxy was attempted in children, and terminated unsuccessfully. In one case, that of a boy aged six years, operated on by Prof. BILLROTH, several large fragments were left in the bladder, and false passages were made with urinary infiltration, and death as a result. The other case alluded to was operated on by Prof. Dittel, in which litholapaxy was unsuccessful, and had to be followed by lithotomy. It seems due to Prof. Bigelow to say that he has never recommended his operation as applicable to children.

PARSLEY AS AN ANTILACTIC.—Dr. STANISLAS MARTIN, after observing that the use of mineral waters interrupted the secretion of milk, states that, as an external application, parsley leaves act most efficaciously in dispersing it, and that they were used for this purpose by the Roman matrons of old. The breasts should be covered with freshly plucked leaves, and these should be renewed several times a day as fast as they begin to fade. The dispersion of the milk soon takes place.—*Med. Times and Gazette*, Dec. 10, 1881.

DUBOISIA IN THE NIGHT-SWEATING OF PHTHISIS.—Dr. FRANZEL has used pills of $\frac{1}{200}$–$\frac{1}{150}$ of a grain of duboisia in thirteen cases of phthisis and two cases of joint affection with profuse sweating, and found that it produces far less effect than atropia; it must be given for days in succession before any effect is evident, and in some instances fails completely. It also produces unpleasant effects, such as nausea, dizziness, dryness of the throat, etc. Once delirium was produced.—*Centrlb. f. d. med. Wissen.*, Dec. 10, 1881.

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SATURDAY, JANUARY 21, 1882.

THE SMALL-POX.

IN another column we print an article on the present epidemic of small-pox in the United States. The statistics given in it are sufficiently striking, although they by no means represent the full extent of the spread of the disease. This is especially the case as regards the States of Illinois and Wisconsin, where it has been slowly but steadily gathering headway during the past year, in a population having a relatively large proportion derived from the North of Europe, and to a great extent unprotected by vaccination. Vigorous efforts are now being made by the health authorities of these States to stamp out the disease, and the orders recently issued by the State Board of Health of Illinois, if systematically enforced, ought to produce a marked change in the small-pox reports from this State within the next month.

These orders do not enforce compulsory vaccination, although the Board has the legal right to do so, but they urge it in the strongest terms and suggest that local boards may properly treat persons refusing to be vaccinated as suspects, especially if they have been in any way exposed to the contagion of the disease.

The circular of the Illinois Board concludes as follows: "*No disease can be so surely prevented or controlled as small-pox. Its existence in a community argues carelessness or ignorance.* The latter may be pardoned in immigrant laborers and peasants; *either is inexcusable in any American citizen.*" Making some allowance for the rhetoric of this statement, it fairly expresses the views of physicians and sanitarians of the present day, and it may therefore be taken for granted that the present epidemic proves that there are in this country a large number of persons unprotected by vaccination. These may be divided into two classes. The first includes those who have never been vaccinated, and is mainly composed of adult foreigners and negroes and of young children of all classes for whom the operation has been omitted through carelessness and forgetfulness. There are a few cases in which the omission has been deliberate through fear of evil results from the operation itself, but the number of these is so small that it is unnecessary to take it into account in relation to the epidemic.

The second class includes those who are supposed to be vaccinated, but who are really unprotected, either because the true vaccinia was never developed in them, or because it was developed insufficiently or imperfectly, or in some few cases, as in some cases of persons who have suffered from small-pox itself, there seems to be a sort of perpetual susceptibility to the disease.

We shall notice here but a single cause of this insufficient vaccination, and that is the difficulty of getting fresh, pure, and thoroughly reliable virus. This difficulty is, it is true, very small; it really involves only the obtaining a post-office order and writing a letter; but, small as it is, it is no doubt often sufficient to turn the scale by causing the matter to be put off for a more convenient hour until it is totally forgotten. One remedy for this, and probably the most effectual one which can be devised, is that the virus shall be furnished gratuitously to physicians by the State under the guarantee of the inspection of a skilled inspector as to its purity and power.

This is done by the State of Maryland, but the guarantee is probably not of much value, for the State has under its control no establishment for the production of bovine virus. Whether a National vaccine farm should be established under the direction of the National Board of Health, for the purpose of supplying reliable bovine virus to all physicians needing it, is a question which is now being discussed to some extent.

It is probable that this is the only way in which a gratuitous supply of such virus can be provided, since it is almost certain that few, if any, of the individual States will undertake such a task; and while there are some objections to it, we think that, upon the whole, Congress would act wisely in authorizing and directing the Board to try the experiment.

So far as regards quarantine regulations, it seems to us that every emigrant to this country should either show satisfactory evidence of good vaccination, or be vaccinated.

It will, of course, be useless to attempt to enforce this regulation at all points on either the Canadian or Mexican frontiers, for a permanent land quaran-

tine along such extended lines is practically impossible, but far the larger number of emigrants enter at our great sea-ports, where such a vaccination regulation can be carried out with comparative ease.

With regard to methods of dealing with the disease when it has appeared in a community, we may have something to say hereafter.

AMERICAN MEDICAL LITERATURE.

IN the NEWS of the 7th inst., we quoted from the London *Medical Times and Gazette*, the assertion that "American medical literature is very voluminous, and characterized by great originality, inventive genius, industry, and practicality." It would be difficult to convey higher praise in the same number of words, and so eulogistic an opinion from an English critic whose position gives him ample opportunity of forming a correct judgment, ought to be sufficient to encourage those among us who are laboring in the cause of medical science, and to silence the croakers who are blindly seeking for some external cause to explain the deficiency which they assume to exist. While they are thus wasting their energies, and waiting for the good time when fame and wealth shall be had without labor, the real live men in the profession have been earnestly at work, and have already built up a literature which commands respect throughout the scientific world.

No observer who has reached middle life can have failed to note the change which has taken place in this regard within the narrow compass of a single generation. The time is not so long past when the few eminent writers of whom we could boast—Dewees, Wood, Dunglison, Meigs, Hodge, Drake, Bigelow, Mott, and their compeers—were little known beyond our own shores; when students had few text-books of home production, and the medical issues from American presses were largely composed of reprints. Now, however, our men of mark are known, and quoted with respect wherever the language is read; there is scarcely a subject on which the student cannot find at least one excellent American work eminently adapted for practical use; and the proportion of reprints among the publications of the day is yearly growing less. American medical science is asserting its right to be heard, and the assertion is listened to with constantly increasing respect. The future, indeed, is bright. As the English language is becoming the dominant one among civilized men, and as America is becoming the leading nation of the earth, it is a world-wide audience to whom our writers will speak through the press. Already in far-off Australia, New Zealand, and Japan, they have their attentive disciples, and these will multiply, together with the teeming millions at home and in the fatherland, into a multitude which will stimulate to yet higher exertions the best minds among us.

In the natural exultation which such a prospect is well-fitted to call forth, we should not forget the debt which we owe to our English brethren. If we are relying upon their labors less now than we did a generation ago, the aid which they afforded us, when we were not as self-sufficing as we now are, was substantial indeed. Their works, unsurpassed in practical value by those of any other race, were reprinted in this country, and the humblest student was thereby enabled to avail himself of their teachings; and to this free communication of their ripest professional experience we doubtless owe the training of many minds which have since become teachers in their turn; to it we certainly owe the stimulation of the reading habit which gives to our own writers their circle of readers. Even the editing of these books, and adapting them to the wants of the American reader, which has so long formed a favorite theme for the criticism of the unthinking, has been an essential service, rendered in many cases by leading men in the profession, who have thus, in addition to the benefits conferred on the student, aided in fitting themselves for subsequent independent work.

All this has been accomplished in the absence of an international copyright law, which many have assumed to be an essential condition precedent to the growth of a flourishing home literature. Yet notwithstanding this, the development has been healthy and rapid—quite as rapid, indeed, as that of any other country. The influence of international copyright, however, is a subject requiring more space than we can devote to it at present, and we hope to recur to it at an early day.

There is one peculiarity in the existing condition of our medical literature, to which we may properly call attention. This is the fact that most of our writers of books are residents of Philadelphia or New York. This is, of course, partly attributable to the fact of the superior clinical and educational facilities of the larger centres of population, where the material for research and observation is at hand, and the stimulus to work is greater, from the activity of medical teaching, and the attrition of mind with mind. Partly, also, it is to be explained by the attraction which these great cities exert upon those who distinguish themselves elsewhere. Gross was a resident of Louisville, Flint and Hamilton, of Buffalo, and Bartholow, of Cincinnati, when they laid the foundation of their fame as writers by works which proved their power as thinkers and teachers. Yet, after due allowance made for these causes, we cannot but think that the eminent men who are to be found scattered among the profession everywhere throughout our country, have not been diligent enough in discharge of the duty, which they owe to themselves and to

their generation, not to allow the results of their studies and of their experience to die with them. Much of this may doubtless be accomplished by journalistic contributions—much already is done in that direction—but much more can be done, and one of the leading aims of the NEWS will be to stimulate the production of this material, and to give it the widest circulation among the readers of that English race which now encircles the globe.

ABDOMINAL SURGERY.

MR. LAWSON TAIT, in a recent issue of the *Medical Times and Gazette*, gives a very interesting summary of his last year's experience in Abdominal Section. From November 1, 1880, to November 1, 1881, he opened the abdomen either for definitely-determined and successfully-accomplished operation, or for exploration, 110 times, of which 51 were cases of ovariotomy. Of the whole number, 9 (8.2 per cent.) died; and of the ovariotomies, 2 (3.49 per cent.). He repudiates entirely the antiseptic system. But the thing that strikes one most forcibly is the utterly different position held by the peritoneum to-day as contrasted with its autocracy of twenty or thirty years ago. Then it was *noli me tangere;* now the danger is, that opening the peritoneal cavity may become almost a morning's amusement to rash and inexperienced men. Then ovariotomists, certain of their diagnosis, and of the possibility of the removal of such tumors, were denounced in unmeasured terms and with the most offensive epithets; now exploratory operations, undertaken deliberately to find out what is wrong in doubtful cases, "serve the purpose of complete tappings, and as the patients uniformly recover, they do no harm at all." The lesson the gynecologists have taught, the surgeons should not pass by, as, in fact, Billroth and Sims, Péan, Czerny, Simon, and others, by their brilliant operations on the stomach, the gall bladder, the spleen, and the kidney, have shown us. The female peritoneum resents injuries perhaps no more quickly than the male, nor in cases of ovarian tumors more than in ileus or abdominal wounds. An exploratory operation, with our present surgical knowledge and methods, is not only no more dangerous than an intussusception, or a bullet in the belly, or a stab that may have produced unsuspected hæmorrhage or other unknown damage, but is, in fact, far less dangerous. Lawyers not infrequently assert that no class of men are more timid under public responsibility than doctors, and especially surgeons in medico-legal cases. If true (and to some extent it is), it is not to be wondered at in view of the constant attempts of our "brothers-in-law" to lay the death of the patient in such cases as Fiske's and Landis's and many others to the doctor rather than the assailant. But now that the way has been clearly pointed out, and its dangers shown to be far less than we had supposed, we should not be slow to seize upon our advantages. The next ten years should show as great an advance in our general surgical treatment of abdominal lesions by abdominal section as has the last ten in gynecological practice. Mr. T. Smith some time since asked whether the peritoneum might not be treated after strangulated hernia, followed by peritonitis, as after ovariotomy, by opening the abdominal cavity, and washing it out; but the profession has not yet answered his question. But when we remember that Battey's operation, the extirpation of the kidney (of which Dr. Thomas gave a notable case in our issue of January 7), splenotomy, the extirpation of the entire uterus, cholecystomy, and exsection of a part of the stomach, are but of yesterday, it is hard to predict what feat to-morrow may not see successfully accomplished.

VETERINARY MEDICINE.

A NEW avenue is likely to be opened in this country for the labors of those energetic and praiseworthy philanthropists, the members of the Society for the Prevention of Cruelty to Animals. An ordinance has just been introduced into Select and Common Councils of Philadelphia looking to the purchase by the University of Pennsylvania of a lot of ground adjoining the present college buildings, and intended chiefly for the establishment of a veterinary school and hospital, in which the diseases of our domestic animals can be studied, taught, and treated.

The condition of veterinary medicine in the United States is by no means creditable to our humanity, enterprise, or business foresight. Capital, usually so sensitive in such respects, is here phenomenally indifferent to the safety of large investments. The aggregate value of the live-stock of the country, including poultry, is not less than $2,000,000,000, and is probably more. Serious epidemics, or, rather, epizootics, have from time to time broken out, and have raged uncomprehended and unchecked, destroying immense numbers of valuable animals. The pleuro-pneumonia of New England cattle in 1859; the Texas fever of 1868; the influenza, which in 1872 affected a large majority of the horses of the Eastern States; the foot-and-mouth disease, which, after establishing itself here, fortunately died out, but proved so serious in England; the various appearances of murrain, hog-cholera, chicken-cholera, and other similar ailments, some of which carried off a majority of the animals attacked—all these are instances of the insecurity in this country of property held in horses, cattle, sheep, swine, or poultry.

With the incompetency of the average veterinary surgeon to deal not only with these but with minor and every-day disorders, we are most of us familiar, and, indeed, in the majority of cases, treatment is relegated to the groom or blacksmith, the shepherd, drover, or cowleech.

But as an example of the beneficial results following *scientific* work in this relation, it may be mentioned that M. Pasteur, of Paris, has recently discovered that, by a process of inoculation closely resembling vaccination, poultry can be protected from chicken-cholera, and cattle and sheep from *anthrax*. Within the last few weeks it is said that 30,000 animals have been inoculated at his laboratory, and it is proposed to extend this protective influence to all the cattle in France.

So far as we know, there is but one organized school of veterinary medicine in America, and of late years but little has been heard from that, probably on account of the lack of public support and patronage, of which we have reason to believe it was thoroughly deserving. Charters have several times been granted by State Legislatures, twice in Pennsylvania, once in Massachusetts, and once in New York, but with the single exception mentioned without subsequent results.

Abroad veterinary medicine has existed as a distinct science for one hundred and twenty years. Schools have been established at Lyons, Paris, London, Glasgow, and Edinburgh, and many of them are in a flourishing condition. Students are compelled to pass a preliminary examination, and a course of three years is compulsory before a license to practice can be granted. In the large cities, successful practitioners of this branch of medicine frequently earn professional incomes of from $5000 to $8000 per annum.

In England and in Scotland, the veterinary surgeons have formed corporate bodies under royal charters, which empower them to appoint examining boards, and to confer diplomas or certificates, which, we are told, are "fully recognized as a guarantee of professional ability by the public throughout Her Majesty's dominions, as well as by the authorities at the Horse Guards and at the India Office."

Any movement in this direction in this country should appeal, it seems to us, to a wide range of sympathies, and should at once enlist in its behalf several large classes of public-spirited citizens; the humanitarians, because to limit and prevent animal suffering is even better than to relieve it, and because the cases of disease immeasurably outnumber those of cruelty or neglect; the capitalists, because by wide-spread diffusion of knowledge on this subject, large amounts of property will be thereby rendered more secure from loss or fluctuation; the political economists and legislators, because a new field of work and profitable employment will be opened up to hundreds of our young men, and because a serious annual loss of national wealth will, in all probability, be greatly lessened or altogether prevented.

PUBLIC ABATTOIRS.

THE establishment, under sanitary surveillance, of abattoirs or public slaughter-houses, in Boston, New York, Philadelphia, Baltimore, and Chicago, is an evidence of proper appreciation of the principles which should govern local sanitary administration. Still other cities are considering the propriety of introducing this much-needed reform, among them Charleston, S. C. A committee appointed to make an investigation of the subject, has examined into the details of these establishments in several of the places above mentioned, and, from personal observation and inquiry, has unanimously concluded to report in favor of the project. This result might have been anticipated, since an unprejudiced investigation must show that the concentration of the entire business of slaughtering and of the utilization and disposal of refuse in well-apppointed and well-regulated buildings, under strict sanitary inspection, is far preferable to the old plan, which permitted the work to be conducted without regulation, except so far as it suited the convenience or caprice of the individual proprietor, and not unfrequently to the annoyance of a whole neighborhood. In addition to the avoidance of nuisances so generally resulting from tardy and careless utilization of the refuse from slaughtering, there is the great advantage which the abattoir system affords of systematic inspection of meat, whereby an additional protection is extended to the public. Charleston is to be congratulated on this progressive movement, and other cities beset with the same annoyances would do well to follow her example.

THE FEES OF THE MEDICAL ADVISERS OF THE LATE PRESIDENT.

A NEWSPAPER report, which has obtained considerable prominence, is to the effect that the Congressional Committee appointed to audit the expenses of President Garfield's illness will insist that the attending and consulting physicians shall present itemized bills duly sworn to with affidavits that the charges are reasonable and usual.

Putting aside altogether, as beneath notice, the implied doubt as to the integrity of those gentlemen, it is manifestly improper that services of such an extraordinary character should be estimated at the usual rates for professional attendance. When distinguished surgeons in active and extremely lucrative practice relinquish their personal occupations, throw aside all other engagements, and

devote themselves almost exclusively to the consideration of a particular case, it is evident that ordinary rules as to "visits" and "consultations" must be set aside in the endeavor to form a just estimate of the value of their labors.

If their services had been voluntary, or in any way pressed upon the patient or the nation, there might be just cause for a display of economy in their remuneration, but under existing circumstances, their constant attendance having been insisted upon by Mrs. Garfield and by members of the Cabinet, we fail to see how Congress, through its committee can, with justice, take any but the broadest and most liberal action in the matter.

It is just, too, that those gentlemen already in the government service, should receive some substantial recognition of their faithful, devoted, and certainly altogether extra-official efforts in behalf of the distinguished sufferer.

In view of the facts we have mentioned, and, in addition, of the hurried and peremptory summons which were repeatedly sent, the frequent and exhausting journeys, not altogether devoid of danger, the stupendous mental strain and anxiety involved in the management of a case of such unprecedented importance, and the almost total cessation of all other occupation, and consequently of ordinary revenues, the Committee would reflect discredit upon itself, and fail to represent the sentiment of the nation, if it offered, as has been suggested, a pecuniary recompense based upon the ordinary professional fees of the average practitioner.

It is safe to say, that the customary fee of a surgeon or physician of eminence called from New York or Philadelphia to Washington, simply to express an opinion upon a case of sufficient gravity to warrant his presence, would not be less than from $800 to $1000, and that he would expect to receive at least $300 daily if he were detained there.

BEEF-TEA AND URINE.

IT is rather a novel idea that in taking a cupful of beef-tea we are really drinking what is equivalent to a cup of urine. According to Mr. Masterman, however, who not long since published a chemical analysis of beef-tea, the two are as alike as may be, only that urine appropriately contains more urea and uric acid. And now comes Dr. Neale, of London, who has been, apparently, in the East Indies, and not only assures us that urine is used as a vehicle for (less agreeable?) medicines, but that, "as a stimulant and general pick-up, I have frequently seen a glass of a child's or a young girl's urine tossed off with great gusto and apparent benefit."

Reduced to straits, we presume we might so use it, but we confess that, usually, "as a stimulant and general pick-up," we mightily prefer the other form of the cup that cheers but does not inebriate.

THE MEDICAL REGISTRATION ACT.

THE law, enforcing the registration of all physicians practising in Pennsylvania, enacted by the last Legislature, was doubtless intended as a first step towards such legislation as may be necessary to secure to our citizens competent medical advisers. As might be expected when such interests are to be provided for and conciliated, the law passed contains some unwise provisions, is obscure in its wording, and admits of various intepretations. That legislation is needed to correct the abuses of medical practice, is conceded by all, but there is no uniformity in the methods of relief proposed.

The present registration law is a transcript nearly of the New York Act, which is now enforced in that State—a fact which ought to silence those who complain that our law was contrived by the medical colleges of Philadelphia. That provision which requires graduates of medical schools in other States to submit their diplomas for verification to one of the medical faculties of this State, is an exact reproduction of the New York law. The medical faculties are required not only to decide as to the genuineness of the diploma, but "to satisfy themselves as to the qualifications" of the applicant, after which "they shall direct their Dean to endorse the diploma." Two interpretations have been given to this provision of the law. The most obvious construction, sanctioned, also, by eminent legal authority, is, that the person presenting himself with the diploma of a school in some other State or country, and demanding its endorsement in conformity with the terms of the law, must "satisfy" the faculty by passing a proper examination. Such an examination, followed by an official endorsement of the diploma, is equivalent to the usual examination for the doctorate, and the subsequent attestation of the candidate's fitness by the signatures of the faculty on his diploma. The holder of a foreign diploma is thus granted another and even more authoritative evidence of professional qualification. It could hardly be expected that the faculties would give so much time and labor, without compensation, and we hold that the schools of New York and of Philadelphia who had proposed to fix a fee of twenty dollars for this service, did not exceed their proper rights. At the same time we are bound to state on undoubted authority that the Philadelphia schools have not received any fees from candidates.

The other interpretation of the Act, which is equally sanctioned by eminent legal opinion, is, that the faculty may be "satisfied" by proof of the identity of the person named in the diploma, and of the

genuineness of that instrument. Without being subjected to a professional examination, the qualifications are assumed on the possession of the diploma, and the Dean certifying these facts to the Prothonotary, the individual is allowed to register. No fee is exacted for this service. We learn that the medical faculties of Philadelphia now base their action on the latter interpretation of the law, and assume that the possession of a genuine diploma from a reputable school is proper proof of professional qualification. We learn, further, that the medical schools of this city are organizing an effort to have this section of the law modified. They regard it as offensive and unjust for the faculty of a medical school in this State to sit in judgment on the qualifications of a medical man, attested by the signatures of a faculty in good standing in another State. Restrictions on diplomas bounded by State lines are manifestly improper. A diploma granted by a reputable medical college should be of equal value in all the States.

PREVENTION OF SMALL-POX.

WE once heard a military officer speak of a great railroad as a great civilizer, and there is no question as to the correctness of the designation. From the centralization of power, possessed in the United States by corporations alone, they are able to accomplish with comparative ease that which municipal, legislative, and even Congressional effort has less power to do thoroughly. This is instanced in the case of the Pennsylvania Railroad, whose action upon the subject of color-blindness we had occasion to record last week. The same company, as we are informed, now requires from each laborer in its employment, and we presume the same rule applies to all grades of employés, a certificate of proper vaccination from some reputable physician. Certainly a most admirable as well as most efficient manner of settling the subject of compulsory vaccination, and one worthy of consideration by all employing large numbers of men and women. Were the same rule established and rigidly adhered to by all employers, much would be accomplished towards stamping out variolous disease.

Such action as that referred to above is not only directly preservative, so far as the laboring classes are concerned, but it must do much in making public opinion. Were such action imitated in factories and workshops throughout the land, it would perhaps make vaccination fashionable, and even the scientific medical mind cannot dispute the controlling power of fashion.

TREATMENT OF BOILS.

DR. LOWENBERG finds incisions and boracic acid solution the most effective treatment of boils. Holding that they are produced by a microphytic parasite, he rejects the usual emollient treatment. He commences by incising them, after the application of ether spray, and then foments with a saturated aqueous or alcoholic solution of boracic acid. When the boils are recent, and the patients refuse the permission to incise them, he finds that simple fomentations with boracic acid solution arrests the development of the inflammatory process.

It may be added that certain internal remedies possess a high degree of value in a succession of boils, notably the pyrophosphate of soda, and the hypophosphites. The relation of a succession of boils to a saccharine condition of the urine should not be overlooked. This is an unknown cause sometimes of their persistence in spite of all the usual remedies.

SPECIAL ARTICLE.

THE PRESENT EPIDEMIC OF SMALL-POX IN THE UNITED STATES.

AFTER having been almost entirely absent from the mortality reports of our large cities for several years, small-pox reappeared at the end of the year 1879 in Philadelphia, New York, and Washington, with an evident tendency to spread. Previous to this it had existed for several months in Texas, and especially in San Antonio. Little or nothing is known as to the mode of its introduction, the outbreaks in Washington and Philadelphia being especially mysterious as to their origin, but it had been prevailing in Canada, Mexico, Austria, Barbary, and Paris, and it probably reached this country from several distinct sources. During the year 1880, the disease became diffused throughout Europe, and especially in European Russia, Austria, Italy, and Germany, although it nowhere assumed the proportions of an epidemic. At the beginning of the year 1881, the principal focus of the disease was in Philadelphia, in which city 196 deaths from small-pox were reported in the month of January. A second centre existed in New York City, a third in Brownsville, Texas, a fourth in Chicago, and a fifth in San Francisco, and from these points and from fresh importations by emigrants, it has gradually spread until, at the end of the year, it existed in almost every State of the Union.

The city which suffered most severely during the year was Philadelphia; the total number of deaths from this disease reported in this city during 1881, being 1319. Six hundred and fourteen of these occurred during the first quarter, the highest number of deaths reported in any one month being 215 in March.

In Chicago, during the year, there were 822 deaths from small-pox, the highest number in any one month being 166 in October, and the next highest, 141, in December. New York City reports 453 deaths from this disease during the year, the highest number in any one month being 84 in June. In

Pittsburg the disease has progressively increased throughout the year, reaching a maximum of 125 deaths in December.

The following table, compiled from the weekly reports contained in the *Bulletins of the National Board of Health*, shows the number of deaths from small-pox reported from the principal cities in this country throughout the year.

CITIES AND TOWNS.	Population.	DEATHS IN 1881. First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
Boston, Mass.	362,535		1		7	8
Fall River	49,006	1	1			2
Westfield	7,587			3		3
Holyoke	21,851				15	15
North Adams	10,192	1				1
New Bedford	26,875				1	1
Gloucester	19,329				1	1
New Haven, Conn.	62,822		1			1
New Britain	13,978	2				2
Meriden	18,340	3				3
New York, N. Y.	1,206,577	97	196	73	87	453
Brooklyn	566,689	7	11	9	7	34
Poughkeepsie	20,207	1				1
Amsterdam	11,711	6				6
Hudson	9,000	4				4
Newburgh	18,050		1			1
Binghampton	17,315		1			1
Buffalo	155,137		1		3	4
Hudson Co, N. J.	187,950	23	37	29	113	202
Newark	136,400	2	1		1	4
Orange	13,206	2				2
Plainfield	8,126	1				1
Camden	41,658	14	9	1		24
Philadelphia, Pa.	846,980	614	364	162	179	1319
Reading	43,280		1			1
Pittsburg	156,381	8	18	133	285	444
Allegheny	78,000	1	2	9	96	108
Wilmington, Del	42,499	5	63	36	14	118
District of Columbia.	180,000		1	1		2
Winchester, Va.	5,000				1	1
Richmond	63,803	1	17	14	104	136
Brunswick, Ga	2,891		1			1
Verona, Miss.	974		1			1
Vicksburgh	11,814	1				1
New Orleans, La.	216,140		2		2	4
Brownsville, Texas	5,672	61	4			65
Austin	10,960				2	2
Louisville, Ky.	123,645		6	8		14
Cincinnati, Ohio	255,708	2	4	1	52	59
Cleveland	160,140		1			1
Evansville, Ind.	29,280		1			1
Madison	8,945				5	5
South Bend	13,279				3	3
Vincennes	7,837				1	1
Chicago, Ill.	503,304	80	105	249	388	822
Lake	18,396	3	3		3	9
Peoria	29,315		1			1
Elgin	8,789				2	2
Milwaukee, Wis.	115,578			1	1	2
Kenosha	3,500			2		2
Minneapolis, Minn.	46,887		2	1		3
Detroit, Mich.	116,342		9			9
Port Huron	9,245			1		1
Albion	1,932				1	1
Bingham Township.	969				18	18
Kasson					1	1
Hartford					1	1
Muscatine, Iowa	8,412	2	1			3
Davenport	21,834	1				1
Keokuk	12,117				2	2
St. Louis, Mo.	350,522		1	2	9	12
Kansas City	55,813		2		1	3
Omaha, Neb	30,518		1			1
San Francisco, Cal.	233,956	12	23	7	5	47
Oakland	35,000		1			1
Boulder, Col.	3,069			1		1
Total		951	895	743	1411	4000

Although this table contains only the reports from the principal cities, and gives no information in regard to smaller towns or villages, or rural districts, it is sufficient to show very clearly the wide-spread prevalence of the disease. We have no means of ascertaining the total number of deaths from this cause in the United States during the year, but it is safe to say that it is more than four thousand. It is impossible to obtain any reliable data as to the number of cases represented by this mortality; nor can the number of cases be calculated by the number of deaths reported with any degree of accuracy, inasmuch as the death-rate may be stated to range from 1 to 20 per cent. of those attacked, depending upon previous vaccination and the general character of the epidemic. In Manchester it has been calculated that each death from small-pox represents sixteen seizures of the disease. In Chicago, during the past year, it is estimated that there have been about two thousand (2000) cases, which would give a mortality of over 40 per cent. It is probably safe to say that the total number of cases in the United States during the year is over twenty thousand (20,000).

The principal spreading of the disease has been along the lines of immigration, and the greater number of cases have occurred among foreigners unprotected by vaccination. In Chicago it is stated that, owing to the enforcement of the rule requiring those children who attend the public schools to present certificates, signed by practicing physicians, that they have been vaccinated, there have been but seven school children attacked with small-pox during the past five years (*Northwestern Lancet*, vol. 1, page 55).

In Cincinnati the Health Officer reports that of the first hundred cases, 33⅓ per cent. died, which would show, as in the case of Chicago above referred to, that these cases must have occurred entirely in persons unprotected by vaccination.

The disease was carried to the College of Keokuk, Iowa, by a cadaver, received from Chicago for dissection, and spread to such an extent among the medical students that the college was closed by order of the Board of Health.

Where the disease has been carried into communities methodically protected by vaccination, as is the case in many New England towns, there has been no spread, and the work done in Washington in December, 1879, is an excellent illustration of how the disease may be promptly stamped out where a community is willing to take the trouble to do it.

REVIEWS.

DIE TEMPERATUR DES GEREIZTEN SÄUGETHIERMUSKELS. Von Dr. MEADE SMITH, Arbeit aus dem Physiologischen Institut zu Leipzig.—*Arch. f. Anat. u. Phys.* Phys. Abth., 1881. pp. 105-152.

In this article, Dr. Smith reports the results of a very painstaking investigation, performed in the Leipzig Laboratory of Physiology, into the relations which exist between heat-production and contraction of the mammalian muscles. The animals employed were dogs, which were narcotized with chloral, opium, or curare. The muscles selected for study, on account of the accessibility of their nerves and vessels, were the extensors of the lower leg. The contraction of these muscles was made to record itself upon moving paper,

while thermometers, introduced into the aorta, the veins coming from the muscles and between the muscles themselves, gave information in regard to the changes of temperature in these regions. A rise of temperature in the muscles could, of course, be regarded as indicative of an increased heat-production only in those cases in which the temperature of the arterial blood was lower than that of the muscle which it supplied, for the increased vascularity of a tetanized muscle would itself cause a rise of temperature in the muscle, if the blood were warmer than the muscular tissue.

Some of the principal results of the research may be enumerated as follows:

1. The maximum temperature of a contracting muscle is independent of the load under which it contracts. This result is different from that reached by Heidenhain and Fick, in the case of frogs' muscles. The cause of the difference remains unexplained.

2. When a muscle makes an extensive contraction, its temperature rises less above that of the arterial blood than when the contraction is slight, and, in general, the connection between heat-production and contraction, though both result from the same nervous impulse, seems to be much less close in the muscles of warm-blooded than in those of cold-blooded animals.

3. The persistent shortening of a muscle after the stimulation has ceased (known to German writers as "contractur"), resembles tetanus, in the fact that when it is overcome by a heavy load, the muscle returns to its former contracted condition on the removal of the load; but it differs from tetanus in the rapid diminution of temperature by which it is accompanied.

4. Tetanus lasting less than two minutes, causes in muscles deprived of circulating blood as high a temperature as can be produced in muscles in which the circulation is going on.

5. Experiments on curarized muscles give no support to the view that nerve stimulation may cause heat-production without muscular contraction.

In the course of the experiments, it became evident that many of the questions which arose required calorimetrical observations for their solution. An investigation of this sort upon excised muscles supplied by an artificial circulation, seems to Dr. Smith within the possibilities of physiological experimentation.

It is to be hoped that he may be able to continue his studies in this direction, and thus throw additional light upon the problems discussed in his present valuable paper.

A SYSTEM OF SURGERY, THEORETICAL AND PRACTICAL. IN TREATISES BY VARIOUS AUTHORS. Edited by T. HOLMES, M.A. Cantab., *First American from Second English Edition, thoroughly revised, and much enlarged*, by JOHN H. PACKARD, A.M., M.D., assisted by a large corps of the most eminent American Surgeons. In three volumes. Vol. II., 8vo, pp. 1063. Philadelphia: Henry C. Lea's Son & Co., 1881.

The second volume of Holmes's Surgery follows fast upon the first, and gives hope that the work will be speedily completed by the appearance of the last. The present volume treats of the Organs of Special Sense, the Circulatory, Digestive, and Genito-Urinary Organs. The increase in the number of the illustrations we notice again is very large, being about 150 per cent. of additional cuts. The articles are of a character that allows of additions much better than those in the first volume; there is less need of re-casting them. Thus, in Diseases of the Bladder, eight pages are given to Bigelow's operation of Litholapaxy by Dr. Keyes. In Diseases of the Teeth, Dr. Truman has wisely obtained from Dr. Kingsley, a section of six pages on Obturators in Cleft Palate, while Dr. Skene has added over ten pages bodily (chiefly from Thomas and Emmet) on Lacerations of the Perineum and of the Cervix Uteri, and an important and entirely new chapter of forty pages on Injuries and Diseases of the Absorbent System, by Dr. S. C. Busey, has been added. We can add little to the favorable opinion expressed when noticing the first volume. The editors have done their work well, and very few errors or omissions of the original have escaped them. The mechanical execution of the work, except some of the wood-cuts, is excellent, much better than in the first volume.

SOCIETY PROCEEDINGS.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, January 6, 1882.

GEORGE ROSS, M.D., PRESIDENT, IN THE CHAIR.

Pneumonia, Diphtheritic Gastritis.—Dr. OSLER exhibited the specimens, which were taken from a man aged sixty-six, who was admitted to the General Hospital with great shortness of breath and prostration, and died in six hours. He was sent in from the House of Refuge, and the surgeon in charge, Dr. Burland, stated that he had noticed the man two days before walking about looking very blue and short of breath. He sent him to bed, and on examination the next day the signs of pneumonia were evident, and he sent him to the hospital. At the autopsy the stomach and duodenum were enormously distended with gas, the diaphragm on the left side was pushed up in front to a level with the second intercostal space. In the thorax the heart was displaced upwards and to the right, the apex being under the sternum. The right lung was universally adherent, the left was free, but pushed up and compressed by the distended stomach. The right lung was in a state of gray hepatization; the only crepitant parts were a small area at the apex and part of the lower lobe. The left lung was small, compressed, but feebly crepitant. The stomach presented an area of diphtheritic inflammation 12 x 10 cm., just to the left of the cardiac orifice. The mucosa of this region was deeply injected and covered with a closely-adherent grayish-white false membrane, from one to two mm. in thickness. When stripped off, the membrane beneath was deeply congested and rough. In the centre of the patch was a spot from which it had been removed. In the vicinity of the large area were other small bits of false membrane on congested bases. Œsophagus and duodenum normal.

Dr. Bristowe, of St. Thomas's Hospital, was the first to describe diphtheritic inflammation of the alimentary canal in pneumonia; he met with it in the colon in two out of thirty secondary, and in four out of sixteen primary pneumonias. Dr. Osler, in about fifty autopsies in primary pneumonia, had met with five instances of croupous or diphtheritic colitis. This was the first specimen in which the stomach was affected. In connection with this, he called attention to the frequency of the so-called diphtheritic endocarditis in pneumonia; thirty-eight per cent. of the cases which he had analyzed occurred with inflammation of the lungs. The extreme distention of the stomach had probably taken place during life and in connection with the gastritis; it doubtless assisted in bringing about the fatal termination by embarrassing the heart and compressing the healthy lung.

The PRESIDENT remarked on the latency of pneumonia in old men, and on the special liability of these cases to sudden death from heart failure.

Mitral and Tricuspid Stenosis.—Dr. MOLSON related the case—a woman aged thirty-nine, who died in the hospital after a residence of four days. She had had rheumatic fever when nine years of age, and ever since had been troubled with short breath and cough on exertion. The chief symptoms on admission were dyspnœa, extreme rapidity and irregularity of the heart, scanty urine, albuminous, and with granular casts. There was no dropsy. Nothing positive could be determined as to the character of the murmurs under an aggravation of the symptoms; the woman sank on the fourth day. Dr. Osler presented the specimens. The heart showed extreme mitral stenosis, with great thickening of the fused segments; left ventricle small, walls of average thickness; left auricle dilated and hypertrophied. The tricuspid orifice admitted the index-finger, the segments of the valves had united, and the edges were thickened. The right ventricle was dilated and hypertrophied; the right auricle much dilated. The lungs were universally adherent; pleura at left apex very thick, and for an inch or more the lung tissue beneath it was cirrhosed, and had dilated bronchi and fibrous bands passing through it. The lungs were in a state of brown induration, but not congested. The kidneys were slightly reduced in size, granular and rough on the surface, and in a state of tolerably advanced cirrhosis.

Dr. OSLER, in reply to a question by Dr. T. W. Mills, stated that he thought the condition of the kidneys might have been the outcome of the chronic valve disease, and represented a later stage of the large indurated organs commonly met with. There was not extensive arterial disease or hypertrophy of the left ventricle.

The Brains of Criminals.—Dr. OSLER read a paper on this subject, and recorded the results of an examination of the brain of the murderer Hayvern, who was executed at Montreal on the 11th of December. He first referred to the observations of Benedikt, of Vienna, who, in eighty-seven hemispheres from forty-four criminals, has found certain peculiarities which he regards as indicative of a lower type of cerebral organization. The points upon which he most dwells are the confluence of many of the principal fissures, and the existence in a considerable proportion (twenty-seven of the eighty-seven) of four frontal gyri, the fourth being formed by the splitting of the first or second gyrus. This is regarded as an animal similarity.

Hayvern was a low, dissolute fellow, addicted to drink, with no special neurosis in his family, who, on June 29, stabbed a fellow-convict. The brain weighed forty-six and a half ounces, and was fairly well formed; the cerebellum was completely covered by the cerebrum. On examination, it was found to conform in many respects to Benedikt's cases, and was atypical, according to his views, in the following particulars: The union of the Sylvian fissure with the first frontal gyrus; the junction of the interparietal with the parieto-occipital and first temporal fissures; the extension of the calcarine fissure into the scissura hippocampi; the union of the collateral and calcarine sulci, and in the fusion of the first frontal gyrus, so that there appeared to be four frontal convolutions arising from the ascending frontal or anterior central gyrus.

To ascertain how far these peculiarities existed in the brains of hospital patients, Dr. Osler examined forty-three hemispheres from twenty-four individuals, and found that a very considerable proportion were of the confluent fissure type. Thus, the Sylvian fissure joined the fissure of Rolando in eight hemispheres, the frontal sulci in eighteen, the interparietal in nineteen, the first temporal in twelve. The chief difference between Benedikt's series of brains of criminals and those examined, was a greater number of unions between the typical fissures, more particularly the fissure of Rolando, which in the former joined contiguous sulci in twenty-four instances. In nine of the forty-three hemispheres, there were four more or less distinct frontal gyri. He thought that much fuller information was needed about the arrangement of the sulci in the different races, and many more criminals would have to be examined before any positive result was arrived at as to the constant atypical character of the brain in members of this class. Speaking of Benedikt's conclusions, he questioned whether it was wise to speak of criminals as an anthropological variety of their species. On his views there is no place left for responsibility; but society cannot afford to have a class of criminal automata, and every rascal pleading faulty gray matter in extenuation of his crimes.

Dr. HENRY HOWARD (Med. Supt. Longue Pointe Asylum) asked if it were known how many of the brains in the series of hospital cases were from criminals, and whether a larger proportion presented abnormalities than could be reasonably thought to belong to this class. He believed in a criminal class as distinct as a mercantile class, and regarded the mental and moral condition of the individuals belonging to it as dependent absolutely on their physical organization. Hayvern was not responsible for his act; it was not premeditated, but performed under the influence of an uncontrollable impulse; and he thought that there was evidence to show that it may have been connected with the epileptic neurosis.

Dr. HINGSTON wanted to know how it was, if viciousness and crime were the product of defective cerebral organization, that some notoriously wicked men had reformed and lived sober and honorable lives? Was it probable that with such a change there was any alteration in the structure of the brain?

Dr. CAMERON thought that, for Benedikt's conclusions to have any value, it must be shown that criminals have invariably atypical brains, and all other people normal ones. Most criminals have some degree of control over their actions, and the law is an effectual deterrent in many instances, particularly where the penalty enacted touches the person. He illustrated the rapid abolition of garroting by the introduction of the lash, and quoted facts to show the good effects of capital punishment.

Dr. SHEPHERD remarked that it was somewhat difficult to say what was the typical brain. The majority of observations were upon the lower classes; we lacked data as to the arrangement of the fissures and convolutions in a large number of the intellectual members of society. He had frequently seen brains of the confluent fissure type in the dissecting-room.

Dr. MILLS said that, with reference to the series of brains from hospital patients examined by Dr. Osler, the question arises as to how far such patients belong to the criminal class. In about one thousand that he had observed closely, he did not think that many of them ranked in this class.

Dr. OSLER, in reply to Dr. Howard's question, stated that the series of brains which he had examined were nearly all preserved by Giacomini's method, and no data existed from which the social status of the individuals could be ascertained. In the forty-three hemispheres (nineteen perfect brains and five halves), nineteen presented one or more atypical features.

Tiemann's "Urethral Finder."—Dr. HINGSTON showed an instrument, lately made by Tiemann, for facilitating the finding of the urethral canal when a number of false passages existed.

Foreign Bodies in the Windpipe.—Dr. HINGSTON narrated two cases. *False tooth in the trachea for over three months, tracheatomy, removal.* The patient, an elderly lady, who had worn a false incisor tooth for over forty years, and had never been in the habit of removing it at night, noticed one morning that she could

not find it. After searching in vain for some time, her attention was directed to a suspicious cough, and she began to think she might have swallowed it; though she had not been disturbed during the night and had no remembrance of its dropping into the throat. When she consulted the doctor, there was very little inconvenience, no difficulty of breathing; but while in his house a violent paroxysm of coughing came on, and she appeared to be choking. Brunelle's method of inversion was at once practised, and she was relieved. An operation was urged and consented to, but the following day she felt so well that she refused to submit. Dr. Hingston heard nothing more of her for several weeks, when she came again, the cough having become troublesome. She again refused operative measures. After consulting several other medical men, all of whom assured her that the tooth was in the windpipe and must be removed, she returned to Dr. Hingston, and finally decided to have the operation performed. On Nov. 1st, the trachea was opened, and with a pair of slightly curved laryngeal forceps the offending tooth was readily grasped, being situated in the neighborhood of the orifice of the right bronchus. It was a small incisor, with a flat gold plate and two lateral extensions to fasten it to the contiguous teeth. It was coated with dark mucus. In the operation, Dr. Hingston adopted a device which answered admirably. After a long incision through the skin and superficial fascia, he made a transverse incision just below the cricoid, inserted the director upon the trachea and tore down, with the greatest ease and without any bleeding, the tissues covering the first five or six rings. The remarkable feature about the case was the length of time the foreign body existed without producing very serious inconvenience.

Dr. HINGSTON, in response to a question from the President, stated that he thought there was some little difficulty to the entrance of air into the right lung.

The second case was that of a young boy, son of a farmer in New York State, who had had *a pin in the windpipe for eleven months*. A day or so after swallowing it, the child was brought to Dr. Hingston, but, as there were no special symptoms, an operation was not deemed advisable. The child subsequently suffered a great deal from cough, fever, and expectoration. He would be better at times, and then severe fits of coughing would come on. One day, after riding on a comrade's neck, he had an unusually hard coughing spell, and ran to his mother, who put him across her knees and struck his back forcibly. Shortly after he went out to the door-step, and while coughing put his finger down the throat and drew out the pin. He has since been quite well.

Chloral Poisoning.—Dr. CAMERON reported a case of a lady who took one hundred and sixty grains of chloral hydrate at a single dose, for suicidal purpose. When seen three hours after, the pulse was eighteen, the pupils contracted, features pale. Believing that the chief indication was to support the failing heart, chloric æther. ℥xxx, was injected subcutaneously every half-hour for four doses, with marked improvement of the pulse and general symptoms. Emetics were employed, but very little came up in the vomiting. The patient made a good recovery.

Dr. PROUDFOOT mentioned that in Boston, when chloral first came into use, he gave sixty grains an hour, for six hours, to a man with delirium tremens. No dangerous symptoms followed; so far as he knew, the drug was good, having been imported from Germany.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, January 5, 1882.

E. L. DUER, M.D., PRESIDENT, IN THE CHAIR.

Extra-uterine Fœtation.—Dr. WILLIAM GOODELL reported the case of Mrs. B. C., aged thirty, who had been married two years without conceiving, but on March 19 her catamenia ceased, and she deemed herself pregnant. She now began to suffer very much from nausea and from pelvic pains, for which her physician, Dr. W. C. Parry, of Mount Holly, N. J., was in attendance more or less after May 6. On May 16, while ironing, she was suddenly taken with a violent colicky pain in her right groin, accompanied by a vaginal flow of blood and by collapse. These colics lasted off and on up to July 15, when she felt relieved. Dr. Parry had in the meantime discovered a pelvic tumor on the right side of the womb, and had diagnosticated extra-uterine fœtation. But from September 5 to 13 she had great bearing-down pains, like those of labor, attended by some hæmorrhage. The cervical canal dilated sufficiently to admit the finger; a miscarriage seemed imminent, but nothing was thrown off. This threw the physician off his track, and he renounced the idea of extra-uterine fœtation for that of natural pregnancy. She had felt fœtal movements, but from this time the child was still and milk appeared in the breasts.

Her health now began unaccountably to fail, she lost flesh and strength, and became bed-ridden. During the first week of last November, she had another hæmorrhage, with labor-like pains, and the cervical canal and os externum again dilated during the disturbance. From this time she began to fail very rapidly, having chills, a high temperature, a frequent pulse, and quick emaciation. On November 15, I was called in to see her. On account of the excessive tenderness of the parts, ether was given. An irregular tumor occupied the abdomen, but smaller than the uterine globe at eight months' gestation; neither fœtal limbs nor the fœtal outline could be felt, nor could the presence of any fluid be made out. The cervix uteri was in a natural position, quite hard, and with a small os externum. The sound passed in five inches, and to the left. No fœtal sounds or uterine murmur could be detected. My diagnosis was a guarded one, but leaned to an extra-uterine gestation. On November 24, aided by Dr. B. F. Baer, of Philadelphia, and by Drs. W. C. Parry, A. E. Budd, and R. E. Brown, of Mount Holly, I performed the operation of laparotomy. As soon as the peritoneum was cut open, an adventitious cyst was exposed. I perforated it with a probe, and enlarged the opening with a uterine dilator. Finding that the placenta covered the whole lower three-fourths of the sac, I prolonged the opening upwards and removed the fœtus. It was macerated, and had been dead some time, as the flesh over the ribs was stripped off during the process of extraction. The placenta was now very slowly and carefully stripped off without any hæmorrhage; every preparation had been made to meet one. Not any liquor amnii was present. The sac was then thoroughly cleansed with a carbolated solution, and every antiseptic precaution taken. The opening in the sac was stitched to that of the abdomen; a glass drainage-tube put in, and the wound dressed with salicylated cotton. Up to December 9 everything went well. The wound united perfectly, the stitches were taken out, the temperature had fallen, and the drainage-tube was about to be removed, when near midnight she very unaccountably went into convulsions; these recurred, and she died comatose on the morning of the 12th. Albumen was found in the urine, and at an autopsy the kidneys were found to be diseased. The fœtal sac had become obliterated, and no relation whatever could be discovered between the condition of extra-uterine fœtation and that of the kidneys which carried her off—the latter seemed to be an accident, and in nowise related to the former. From the history of this case, there is no question, in my mind, that the operation of laparotomy for extra-uterine fœtation must be far more successful after the death of the child. For when the

child is living, it would, on account of the inevitable hæmorrhage, be unjustifiable to remove the placenta; and the presence of so large a mass, which must slough off and putrefy, will seriously compromise the life of the woman. But when the child has been dead for some time, the placenta can be safely peeled off and the sac be wholly emptied, as in my case.

A Successful Case of Hysterectomy.—Dr. GOODELL also reported the following case. The patient, a mulatto of thirty-five, had cystic degeneration of each ovary. The pelvic and intestinal adhesions were of the most formidable character, making in themselves a long and a bloody operation. But in addition to these complications, each ovary was so incorporated with the womb that he was obliged to remove that organ. This he did by dissecting off the bladder, by applying the wire-clamp at a point midway between the os externum and the os internum, and by transfixing the stump with two pins. Strange as it may seem, on the fourth and fifth days quite a smart menstrual flow, or rather a metrostaxis, took place from this small cervical fragment. The clamp fell off on the fourteenth day, leaving a very large and deep funnel-shaped opening, which is now rapidly filling up. It is now three weeks since the operation, and the patient is convalescent. He stated that ovarian tumors are rare in the colored race, this being the second case, only, which he had seen. On the other hand, fibroids of the womb and fibrocystic tumors are more common with them than with the white race.

Monocyst probably of the Ovary, but which Contained Limpid Fluid.—Dr. B. F. BAER exhibited a specimen with the following history: M. J. T., aged forty, single, catamenia regular. In October, 1880, she discovered an abdominal tumor in the centre of the hypogastrium. She has been growing thin in flesh with the growth of the tumor. It apparently has varied in the degree of tension, being sometimes more flaccid than at others. Physical examination revealed a cyst of the abdomen, not very tense, extending one hand's-breadth above the navel; the cervical resonance was very marked, dulness on percussion was also marked, and there was perfect fluctuation throughout the tumor. The womb was movable, flexed to the right, and lay behind the tumor. The sound passed three inches. From the flaccidity of the cyst, I was at first inclined to believe it to be a cyst of the broad ligament; but the rapid growth of the tumor, and the quick emaciation of the patient, pointed rather to an ovarian cyst. On Dec. 31, 1881, the tumor was removed by Prof. Goodell. It was found to occupy a position to the left of the uterus, and was at first thought to be a cyst of the broad ligament, for the following reasons. It was a thin-walled monocyst, and contained a perfectly limpid fluid. The Fallopian tube was stretched over the surface of the tumor and elongated, the fimbriæ were spread out on the wall of the cyst. But after a very careful search the ovary could not be found. In a cyst of the parovarium, the ovary usually occupies a position on the side of the tumor, more or less closely attached to it by a mesovarium. After the pedicle had been ligated and the tumor cut away, another careful search was made for the ovary, both in the pelvis and on the cyst, but it was not found. The right ovary was found in the normal position, and was healthy. The only portion of the cyst-wall which in any way resembles the remains of a degenerated ovary, is a dense white substance, corresponding in position to that which would probably be occupied by the ovary; but this forms part of the cyst-wall, as the tunica albuginea does in ovarian cystic disease, and there is no sign of an attachment by a mesovarium.

The interest in this specimen hinges on the organ from which it was developed. If it could be proven that it originated in the parovarium, then it is of no special interest, because the arrangement of the external and middle coats allows them to be readily separated from one another, and the Fallopian tube is related to the cyst-wall in the manner described by Dr. Bantock as peculiar to parovarian cysts; the fluid furnished by it also corresponds to that usually found in such a cyst. But if it is a monocyst of the ovary, it then becomes of special interest, for it is denied by several recent writers (Bantock and Tait, for instance) that monocystic tumors ever occur in the ovary, but that when such a cyst is found it is always of parovarian origin. Now that seems to be too sweeping a statement, for many eminent authors, among them Wells, Peaslee, and Atlee, speak of having met with unilocular ovarian cysts; and I can recall a case of a large monocyst, removed by Dr. Goodell from a young lady of twenty years, in which the history, the relative position of the Fallopian tube to the cyst-wall, the close adherence of the different coats to one another, the albuminous fluid rich in cells, and the absence of the ovary, pointed pretty clearly to ovarian disease rather than to parovarian.

I also present another specimen, which proves beyond a doubt that a monocyst may occur, at least while the cyst is small. This specimen was removed by Dr. Goodell from a lady twenty-two years of age. It presents a single cyst in each ovary, and, in addition, a cyst in the broad ligament of one side.

Again, if the specimen first exhibited originated in the ovary, it presented an unusual feature in the character of its fluid, which was limpid and devoid of cells. If it did not spring from the ovary, why could not that organ be found? It could hardly be congenitally absent, when all the organs in its neighborhood—Fallopian tube, broad ligament, and parovarium—were present.

Dr. GOODELL did not consider this cyst one of the ovary, simply because the corresponding ovary could not be found, for one cannot make a prolonged search at such a time. Besides, he had never seen such a clear fluid from an ovarian cyst. Again, another diagnostic point of a broad ligament cyst is the alternations of tenseness and flaccidity; so this cyst was sometimes quite tense and at others so relaxed as to make it quite difficult to define its outlines. An ovarian cyst, on the contrary, is always tense, even if it has been recently tapped, but refilling. Further, the peritoneal and other layers of the wall of an ovarian cyst are so firmly matted together by the cicatrices made by the escape of Graafian follicles, that they cannot be easily separated. In this specimen the layers are, like those of a parovarian cyst, very easily torn apart. He himself had no doubt that the cyst is one of the parovarium.

Dr. T. M. DRYSDALE believed that a thorough search of the cyst might disclose the presence of the ovary, as he had, in several cases of tumor of the broad ligament, discovered the missing ovary spread over and incorporated in the cyst-wall. He also considered the limpid fluid, free from cells, an incontrovertible diagnostic point.

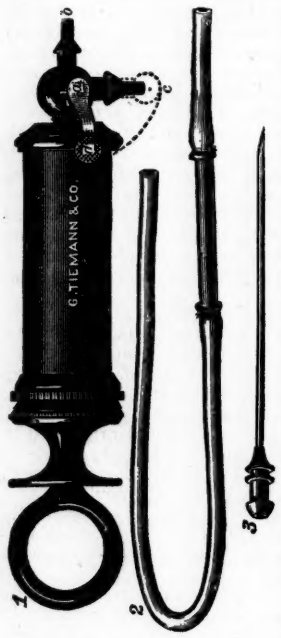
NEW INVENTIONS.

A NEW ASPIRATOR AND STOMACH-PUMP.

Feeling the importance of the more general distribution of such a useful and necessary instrument as the aspirator, and believing that the great costliness of the present instrument is the main obstacle to its more general use, Dr. GEORGE T. MILLER, of Byronsville, Ga., has, with the assistance of Messrs. George Tiemann & Co., of New York, been able to devise such an instrument as, is hoped by its cheapness, will remove this

hinderance, and by its effectiveness and simplicity meet with general favor.

The instrument is made of hard rubber in the main. The metallic portion is nickel-plated. 1. Pump. 2. Flexible tube with glass tube inserted, used for exhausting. 3. Needle. *a*. Stopcock. *b*. Nozzle for attachment of exhaust tube. *c*. Nozzle for attachment of escape tube. *d*. Thumbscrew for working stopcock, *a*.



To use the instrument attach one end of tube 2 to the selected needle and the other to nozzle, *b*. Attach a piece of tubing to nozzle, *c*, for conducting pus, etc., to a suitable vessel, and then, after introducing the needle, turn the thumbscrew, *d*, in the line, *a*, *b*, and then draw out the piston; when the pump is full turn the thumbscrew, *d*, in the line, *a*, *c*, and shove down the piston. This action may be repeated as often as necessary. If desired the needle can be attached directly to point, *b*. It will be perceived that this instrument can very readily be used for injecting a solution into a cavity, as well as evacuating its contents, by simply reversing the action of thumbscrew, *d*.

It can also be used as a stomach-pump, and with one of George Tiemann & Co.'s soft-rubber "velvet-eyed" stomach tubes it is always ready for an emergency, and very effective. And further, it can be used for any purpose that a Davidson syringe can, if only the proper tubes are attached to nozzle, *b*, all of which are obtainable from the makers, Tiemann & Co.

Dr. Miller claims that this instrument is equally effective as the most costly; that it is less liable, from its simplicity of construction, to become disordered; that from its low price, it is within the reach of all practitioners, and that from its extended uses it fulfils a long-felt desideratum.

NEWS ITEMS.

BALTIMORE.

(*From our Special Correspondent.*)

Physiology of the Isolated Mammalian Heart.—At the Johns Hopkins University, Professor Martin is continuing his experiments on the physiology of the isolated mammalian heart. His method of procedure is as follows, viz.: A cannula is put into each common carotid trunk, and another into the left subclavian. The right subclavian is ligated, as is also the aorta immediately beyond the origin of the left subclavian. In this way, all flow through the systemic arteries, except the coronaries of the heart, is prevented. Next, the inferior cava is tied just above the diaphragm, and then the azygos vein; a cannula connecting with a reservoir of fresh, warm, defibrinated blood is tied into the vena cava descendens close to the heart. Blood from the reservoir is supplied to the right auricle, and, simultaneously, bleeding is carried on from the cannula in the right carotid, until all the blood originally contained in the heart and lungs of the animal (dog) is washed out and replaced by defibrinated blood. The animal is then transferred to a warm, moist chamber, kept at a uniform temperature of 37° C. by an automatic gas regulator. In this chamber are two Marriott's flasks, filled with warm, defibrinated blood; their outflow tubes unite in a common tube, which is attached to the cannula in the vena cava descendens. From the Marriott's flasks the heart is supplied readily with fresh blood, under a uniform pressure and at a constant temperature. So soon as one is empty, its outflow tube is closed and that of the other opened, so that the experiment goes on for hours without interruption. The cannula in the left carotid of the dog is connected with an outflow tube supplied with a stopcock; the latter is opened so far as to permit a certain proportion of the blood which has entered the right auricle, traversed the lungs, and been expelled by the left ventricle into the aortic arch to flow out into a beaker; the rest of the blood, propelled by the heart, must pass through the vessels of that organ, no other way being open. The cannula in the left subclavian is connected with a mercurial manometer, whose pen records arterial pressure and pulse-rate on the paper of a kymograph in the usual manner. Uniform artificial respiration is maintained by a small water engine.

In this way, the heart of the dog or of the cat may be kept alive for hours (in one case for seven hours), beating with perfect regularity, and maintaining a normal arterial pressure. All this time there is no circulation in any other organ of the body, but the lungs; brain, spinal cord, and sympathetic, die within a short time, and the muscles pass into a state of rigor. The heart and lungs are completely physiologically isolated. With uniform artificial respiration, the influence of the lungs upon the heart is constant throughout an experiment. An artificial lung is, however, in course of preparation. Professor Martin has recently completed a series of experiments relating to the influence of variations of arterial pressure upon the rhythm of the heart-beat. A rise of arterial pressure when the pneumogastrics are intact, is known to slow the pulse-rate by excitation of the medullary cardio-inhibitory centre; and after the vagi are cut, to quicken it, indirectly, by stimulating the medullary centres of the accelerator nerves of the heart. When all extrinsic cardiac nerves are divided, the results obtained by different experimenters vary in every conceivable way. Some find that higher arterial tension quickens the pulse; others, that it slows it; and some, that it has no effect; others again find all of the above three different results in different experiments. The reason of this diversity is not far to seek; the methods employed to vary arterial pressure (compression of the thoracic or abdominal aorta, or injection of blood from another animal into an artery of the experimental animal), change many things besides arterial tension; for example, rate of inflow to the auricle, pressure in the veins opening into the auricle, and hence in the right auricle itself, temperature of the blood, and chemical composition of the blood. All these secondary effects having been ignored, the origin of contradictory results of previous workers is readily seen. In Professor Martin's experiments, blood is supplied, under uniform pressure and at uniform temperature, to the right auricle. Arterial pressure is varied by opening or closing the stopcock on the outflow tube from the left carotid. The artificial respiration being uniform, arterial pressure is the only condition changed under these circumstances. He finds that within physiological limits, variations of

arterial pressure have not the slightest direct influence upon the pulse-rate. In small dogs, pressure in the subclavian may be varied from one hundred and sixty to twenty millimetres of mercury, and the number of heart-beats per minute remains absolutely unchanged. An increase or decrease of arterial pressure *per se*, has no effect on the pulse rhythm. When the variations of arterial pressure are so great as to become pathological, then changes in the heart's rate follow them. For example, if arterial pressure (measured in the subclavian), is kept for a moment at about fifteen millimetres of mercury, then not enough blood is driven through the coronary arteries to nourish the heart, and its beat becomes slower. On the other hand, if the exit stopcock be nearly closed, and the inflow to the right auricle be considerably increased, more blood reaches the left ventricle in its diastole than it can force out during its systole, through the narrowed aperture of the stopcock, and through the coronary arteries, the only paths open. The heart-beat, then, is profoundly modified; it becomes markedly slowed and dicrotous, a powerful systole, apparently half emptying the ventricles and being immediately followed by a less marked beat, which is succeeded by a pause before the next powerful systole occurs. The defibrinated blood referred to, has been in most cases simply whipped and strained blood from other dogs; in some cases, of late, this has been diluted with one-third its bulk of a 0.7 per cent. solution of pure sodium chloride in distilled water, with satisfactory results. Quite recently, defibrinated calf's blood has been used, with success, to nourish the isolated dog's heart. Professor Martin is at present engaged in investigating the action of varied pressure in the veins opening into the right auricle, and of varied temperatures upon the pulse-rate of the isolated mammalian heart. Two of his students are studying the action of digitalin upon it. Dr. Sewall, associate in physiology, is studying the influence of pneumogastric stimulation upon the isolated mammalian heart, with varied pressure in the right auricle. This line of research will, doubtless, lead to very important results.

CINCINNATI.

(From our Special Correspondent.)

ADULTERATION OF SUGAR.—The local societies are well attended this winter; numerous papers have been presented, and the discussions which followed them have been full of interest.

The winter session of the Academy of Medicine was opened by a paper by Dr. James G. Hyndman, which consisted of a report on the examination of samples of white sugar for muriate of tin, the agent so often employed in the bleeching process. Six different specimens of sugar—representing the product of four refineries—were examined, and all with negative results. The presentation of this paper led to a more general discussion on adulteration of various staple articles of food.

PREVENTION OF LACERATION OF THE PERINEUM.—Dr. Thad. A. Reamy recently delivered an address before the Academy of Medicine on his new method of preventing laceration of the perineum. He prefaced his remarks by a brief reference to the anatomy of the parts, and an account of the various means hitherto employed in the attempts to prevent laceration. His own plan consists in placing the patient on her back in the usual forceps position (the limbs being flexed to the greatest degree practicable), and stretching smoothly over the patient's bulging perineum a towel, the extremities of which are held beyond the gluteal masses on either side by his own or his assistant's hands. The perineum is not touched except by the towel, and all the tension is made from the ends of the towel. Applied smoothly in this manner, with its upper border on a level with the posterior commissure, and the posterior border extending to a point opposite the coccyx, the towel forms a supplementary perineum, which, while remaining untorn, effectually prevents rupture of the tissues beneath. The doctor had tested his plan thoroughly in private practice, and had also demonstrated its utility in a recent case of forceps delivery before his class at the college. He was perfectly assured of its effectiveness, and recommended resort to it in cases of forceps delivery, and in other cases, especially in primiparæ when any disproportion existed between the size of the head and the vulvar orifice. The plan is also applicable in the prevention of laceration by the shoulders, and the towel should not be removed until after their delivery.

MONTREAL.

(From our Special Correspondent.)

LAVAL UNIVERSITY.—The Laval University question, which has excited so much interest here for the last three years, has been at last settled by decrees from Rome. The point at issue was, briefly, this: Laval, at Quebec, is the only Catholic university in the province, and is in the hands of the more liberal section of the clergy. The French Canadians in Montreal have long wished for another university, but have never been able to get the consent of the church authorities. In 1876, Laval decided to establish a branch (succursal) in Montreal, with full faculties, and as there was already a French medical school, arrangements were made to take over its teachers as professors in the medical faculty; indeed, the names were printed. At the last moment the agreement was annulled, and the majority of the teachers in the L'École de Médecine decided to stand by the old institution, and have nothing to do with Laval. A number of the active members of the school remained firm to their agreement with Laval, and a medical faculty was organized. The contest has been chiefly between these rival schools; the old L'École de Médecine, backed by a large section of the Montreal clergy and several bishops, has contested the legality of the Laval branch, as her charter defined her location at Quebec. In this they had the support of Sir Farrar Herschel, the Solicitor-General of Great Britain. An act was obtained in the local Legislature, extending the Laval charter so as to cover the Montreal branch. But the real struggle has been at Rome, to which both parties appealed, and to which deputations have been sent. The latest news is that the sacred congregation has finally decided in favor of Laval. Our French brethren are faithful sons of the church, and settle their disputes in a good old mediæval way. The Laval faculty at Montreal has been very energetic. A good school-building has been procured, and a new hospital established (Hospital de Notre Dame), as the Hotel Dieu is entirely under the medical control of the L'Ecole de Médecine.

LIBRARY OF THE SURGEON-GENERAL'S OFFICE.—From the annual report of the Surgeon-General we learn that nearly 2500 volumes and 3200 pamphlets have been added to the library during the past year, making the total number about 54,000 volumes and 60,200 pamphlets.

The publication of Volume II. of the *Index Catalogue* has been completed, and the edition of 1500 copies is being distributed. The manuscript of Volume III. is now going to press. An estimate has been forwarded for printing Volume IV. of the *Catalogue*, and it is hoped that the appropriation asked for will be

granted, in order that the progress of this important work may not be retarded.

It is earnestly recommended by the Surgeon-General, and by the President in his message to Congress at the commencement of the last session, that an appropriation be made for a new fire-proof building, adequate for the present needs and reasonable future expansion of these valuable collections. Such a building, absolutely fire-proof, it is believed could be erected for $250,000.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.—The annual meeting of the College was held on Wednesday evening, January 3, when the following officers were elected for the ensuing year: President, Dr. W. S. W. Ruschenberger; Vice-President, Dr. Alfred Stillé; Secretary, Dr. R. A. Cleemann; Treasurer, Dr. Charles S. Wurts.

Dr. Stillé, Chairman of the Library Committee, reported that the total number of volumes in the library was 22,419, of which 16,405 belonged to the general library, 6014 to the Lewis library. The total increase during the year was 1040 volumes.

UNIVERSITY OF PENNSYLVANIA.—The Provost of the University, Dr. William Pepper, has petitioned the Councils of Philadelphia to transfer to the University, for a nominal sum, the tracts of land belonging to the city, and lying adjacent to the present University site for the erection of a school of veterinary science, and a hospital for domestic animals, dormitories, museums, training-school for nurses, and free library.

The trustees agree in return to devote the property entirely to educational purposes, to maintain fifty scholarships for students from the public schools of Philadelphia, and to pay an annual ground-rent to the city, or principal sum in lieu thereof. The petition and the proposed ordinance, with a strong recommendatory letter from the Mayor, were referred by Councils to the Committee on Finance and City Property, which has since reported unanimously in their favor.

Ground has been broken for the Henry C. Gibson Ward for Incurables, and it is believed that this addition will be ready for occupation next summer.

NEW HAMPSHIRE DISTRICT MEDICAL SOCIETY.—The annual meeting of this Society was held at Concord last week, Dr. George Cook, Vice-President, in the chair. Papers were read by Dr. George H. Sanborne, Dr. Fowler and Dr. Walker. Dr. Watson, Secretary of the Board of Health, made some remarks concerning drainage.

The following officers were elected for the ensuing year: President, Dr. George Cook; Vice-President, Dr. D. P. Goodhue; Secretary, Dr. George C. Blaisdell; Treasurer, Dr. H. M. French.

The next meeting will be held in April.

PRESBYTERIAN HOSPITAL, PHILADELPHIA.—The Trustees of this hospital have just authorized the formation of a dispensary service for diseases of the ear, and have placed it in charge of Dr. Charles H. Burnett, well known as the author of an excellent systematic work on the diseases of the ear. It is proposed to utilize this service for the purposes of clinical instruction.

A NEW COLLEGE OF PHARMACY.—The Governors of Union University have organized a department of pharmacy, to be known as the "Albany College of Pharmacy." The lecture-rooms and laboratories of the Albany Medical College will be used for the purposes of the college of pharmacy. The course of instruction is graded, and the faculty consists of Dr. Jacob S. Mosher, Professor of Botany and Materia Medica; Willis G. Tucker, M.D., Professor of Chemistry; Gustavus Michaelis, Professor of Pharmacy.

THE WARREN TRIENNIAL PRIZE.—The Warren Prize Committee offer a premium of $400 for the best dissertation worthy of a prize, upon the following subject: "Chronic Bright's Disease (parenchymatous and interstitial nephritis); the Nature and Mutual Relations of the Disturbances of the Circulatory and Secretory Organs." Dissertations should be forwarded to the Resident Physician, Massachusetts General Hospital, Boston, on or before February 1, 1883.

MEDICAL EDUCATION.—The Report of the U. S. Commissioner of Education states that during the year 1879 the degree of Doctor of Medicine was conferred by "regular" Colleges (68 in number) on 2759 candidates. During the same year there were in the United States eleven training schools for nurses, with 51 instructors, 298 pupils, and 141 graduates.

THE MISSOURI MEDICAL COLLEGE has organized a post-graduate school, with a faculty of thirteen, composed in part of the members of the regular faculty, and in part of distinguished specialists, not members of the faculty. The course covers the whole range of practical medicine. It begins February 20, and will continue for six weeks.

HEALTH IN MICHIGAN.—The State Board of Health, in its *Bulletin* for the week ending January 7, states that the reports indicate that bronchitis and influenza increased considerably, and that erysipelas, tonsillitis, and puerperal fever decreased considerably, in area of prevalence.

Up to date, small-pox is reported at Detroit, Bay City, Grand Rapids, Kalamazoo, South Haven, and near Monroe. A new case was brought to Grand Rapids from Chicago, January 9. Vaccinations are general in many parts of the State.

THE PARIS FACULTY.—Prof. VULPIAN resigned on the 17th of November the position of Dean of the Faculty of Medicine of Paris, a position which he has held since December, 1875. A vote of thanks for his past services and regret at his resignation was unanimously passed by his colleagues. Prof. Béclârd has been nominated as his successor.

It is understood that owing to the appointment of M. Paul Bert to be Minister of Public Instruction, Prof. Vulpian considered that the period of his usefulness as Dean of the Faculty had come to an end.

CONSULTATIONS WITH HOMŒOPATHS.—The Royal College of Physicians of London have adopted the following resolution without a dissenting vote:

"While the College has no desire to fetter the opinion of its members in reference to any theories they may see fit to adopt in connection with the practice of medicine, it nevertheless considers it desirable to express its opinion that the assumption or acceptance by members of the profession of designations implying the adoption of special modes of treatment is opposed to those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public. The College therefore expects that all its fellows, members, and licentiates will uphold these principles by discountenancing those who trade upon such designations."

Suffice it to say that Dr. Wilks, in moving the resolution, said it was not directed against *opinions*, but against quackery, which he defined as trading in treatment, homœopathy being, therefore, the "quintessence of quackery."—*Lancet*, Dec. 31, 1881.

DEATHS UNDER ETHER.—In recent numbers of the *Lancet* (August 27 and September 3), there are reported two more deaths under the administration of ether; in one case, that of a woman of fifty, who was being operated on for the removal of a tumor from the jaw, death could be attributed to collapse from profuse hæmorrhage and interference with breathing from cancerous deposits in the lungs, which, however, were only revealed by the post-mortem examination. At the inquest, it was decided that death resulted from the effects of the operation, but that "said operation was in all respects skilfully and properly performed." In commenting on this case, the *Lancet* advises that when an operation is about to be performed, in which the danger from suffocation is increased by the operation itself, it is safer, all things being taken into account, to administer a quickly-acting anæsthetic, like methylene, rather than ether, and that in all diseases of the lungs, the anæsthetics of the chlorine group are safest and best.

The second case can more properly be called a death *from* ether. The patient was a miller, aged forty-eight, and the operation was consequent upon the patient having run a rusty bill-file into the middle finger of the right hand. The patient had suffered from rheumatism, but the heart was normal. Under the administration of ether, and before the patient was anæsthetized, respiration suddenly ceased. Artificial respiration was resorted to, but without avail. The verdict at the Coroner's inquest was death from syncope, but the *Lancet* believes that the death in this case also can be attributed to the lungs, which were supposed, in the absence of any evidence, other than the man's occupation, to be emphysematous. In this case, also, it believes that methylene would have been a safer anæsthetic, or even local anæsthesia might have been employed.

The *Medical Times and Gazette*, for December 24, reports the death of a laboring man, sixty-seven years of age, who died while being etherized, from the entrance of blood into the trachea from a compound wound of the jaw. The operation proposed was the suturing of the bone fragment with wire.

M. PASTEUR'S VACCINATIONS.—Statistics brought up to October 1 show that the inoculations of splenic fever, according to Pasteur's method, were performed on 160 flocks, comprising 68,900 sheep, of which 33,576 were vaccinated, and 21,938 animals were left uninoculated, so as to judge of the results of the difference of treatment. Before vaccination, the losses caused by splenic fever amounted, on the whole of the flocks, to 2986 animals. During vaccination, and until its effects were perfected, 260 sheep out of the whole number of 33,596 perished. During the same period, the mortality rose to 366 out of the group of 21,938 which were not vaccinated. When the effects of vaccination were complete in the first group, the mortality from splenic fever fell to five. This rate has persisted up to the present time; and the next statistical account will give, it is expected, the same satisfactory results as regards the groups of animals vaccinated and left unvaccinated.—*British Med. Journ.*, Nov. 19, 1881.

COHN ON THE EYES OF MEDICAL STUDENTS.—Dr. Cohn (*Med. Jahbr. d. K. K. Gesell. d. Aerzte. z. Wien.*, 1881), says that fourteen years ago he found that 53 per cent. of the Catholic theological students, 55 per cent. of the law students, 56 per cent. of the medical students, 67 per cent. of the Evangelical divinity students, and 68 per cent. of the philosophical students, were myopic. In the summer of 1880, 59 per cent. of the medical students were myopic, 55 per cent. of the junior or non-clinical students, and 64 per cent. of the advanced or clinical, the longer studies of the latter being probably the cause of the higher percentage. In discussing the cause, Cohn says that the blame lies entirely upon the methods of study. The lecture halls are badly lighted, the benches and desks so arranged as to make writing most uncomfortable and difficult, the type of the text-books is too small, and the lines too long (straining accommodation when the eye passes from the ends to the middle), as well as too closely printed. He recommends that the light should fall fully on every spot in hall; that the benches should be 45 centimetres (17.7 nches) high, and 40 centimetres (15.8 inches) broad, while the desks should be 70–75 centimetres (about 29.5 inches) high, and 35 centimetres (13.8 inches) broad, to allow of easy writing. The type, he says, should be 1.5 millimetres (.06 inch) in size—of small *n* for example—and 0.25 millimetres (.01 inch) in thickness of line; the intervals between the lines should be at least 2.5 millimetres (.1 inch), and the lines should not exceed 100 millimetres (about 4 inches) from one side of the page to the other.—*London Med. Record*, Nov. 15, 1881.

ALBUMEN WATER is recommended as a good substitute for milk and beef-tea, in cases where these substances disagreed with the patient, or could not be obtained. The preparation is largely used by the French. It is made by dissolving the white of one or more eggs in a pint or two of water, sweetening with glycerin, and flavoring with orange-flower water. It may be taken cold and used *ad libitum*. It is an excellent food in typhoid fever and typhoid dysentery.—*Dublin Journ. of Med. Science*, Sept., 1881.

A GASTROSCOPE.—Dr. MIKULICZ, of Vienna, has perfected an instrument by which the interior of the stomach and œsophagus are submitted to direct inspection by means of an incandescent platinum electric light in a metal œsophageal tube. The instrument is described in the *Allgemeine Wien. Med. Zeitung*, Nov. 8, 1881.

LITHOLAPAXY IN EGYPT.—At the meeting of the Société de Chirurgie, held on December 7, reported in *Le Progrès Médicale*, December 10, 1881, M. Zancarœ read a long and interesting report of eighty-one cases of calculus, treated by different methods, in the Greek Hospital at Alexandria. M. Zancarœ gives decided preference to the Bigelow method, which he employed in fourteen cases.

A PAY HOSPITAL FOR WOMEN.—The experience of those connected with "The Seaside House for Invalid Women," at Atlantic City, has shown that there is greatly needed a pay hospital for women in moderate circumstances, who do not need and would not accept the assistance of the charitable.

The success of "The Seaside House" encourages the belief that a hospital for this class of women could, with a moderate rate of board, be made nearly if not quite self-supporting. The institution has most of the appliances needed for such a hospital, and instead of allowing them to remain idle during nine months in the year, it has been determined, as an experiment, to keep the house open this year.

Application for admission should be made to Dr. Bennett, No. 332 South Fifteenth Street, Philadelphia.

MEDICAL CONGRESS AT SEVILLE.—A medical Congress will be held at Seville, commencing April 9, 1882, lasting, for scientific discussion, until the 16th.

The transactions of the Congress will be published in the *Gaceta Medica de Seville*.

PERSONAL.—Prof. Freund, of Strasburg, has been offered the Chair of Obstetrics in Breslau, vacant by the

death of Prof. Spiegelberg, and has, it is reported, accepted it.

In the recently-published number of this *Archiv*, Prof. Virchow has published a letter of thanks to all who took part in the recent demonstration in his honor. He regrets that he is unable to thank each personally; but he is convinced that the expressions towards him were heartfelt, and to each one he returns his most cordial thanks.

NEW JOURNALS.—The first number of the *New England Medical Monthly*, under the editorial direction of Wm C. Wile, M.D., appeared in the latter part of last year; it is a fifty-page octavo journal with a well-filled table of contents, and presents an attractive appearance. It is published in Newtown, Conn.

The first number of the *Detroit Clinic*, a new weekly medical journal, which appears to derive its support from the Detroit Medical College, has been issued with the date of January 4, 1882. It is a neatly-printed octavo of sixteen pages of text.

The *Rocky Mountain Medical Review* has, on account of the removal of Dr. A. W. Adams from Colorado, been merged into the *Rocky Mountain Medical Times*, a handsome monthly journal, under the editorship of Drs. T. H. Hawkins and F. A. E. Disney.

NOTES AND QUERIES.

CONGENITAL BRONCHOCELE.

To the Editor of the MEDICAL NEWS.

SIR: Has there ever been any notice or record of congenital bronchocele on this continent? All that I know of it in Europe, is the notice given it by Prof. Hartshorne in Reynold's *System of Medicine*, where he notices its occurrence in France and Derbyshire, England.

I had a well-marked case of it in this city, where the disease is not common and only sporadic. There could be no mistake about the diagnosis, as the case was plain. There was no history of heredity. Parents of good form; tall, young, handsome, intelligent, and of long-lived stock. Mother, fourteen months previous, in her first labor, at seven months, I delivered by severe force of a frog-like monstrosity.

The child, in this last accouchement, was a girl, otherwise well formed, and healthy. The tumor, which was large and produced so much deformity that it created much sadness in the household for a time, gradually disappeared, and was not noticeable after a few weeks. Two kinds of applications were made with gentle pressure. One composed of turpentine spirits, camphor, and iodine in glycerin; and another, ergot and glycerin. The tumor was soft, and seemed to be highly vascular.

I am, sir, yours, etc.

M. R. MORDEN.

ADRIAN, MICH.

[Congenital bronchocele is undoubtedly a very rare malformation, but it has been observed.—ED.]

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 4, TO JANUARY 16, 1882.

TREMAINE, W. S., *Captain and Assistant Surgeon.*—Now awaiting orders in New York City, to report in person to the commanding general, Department of the East, for assignment to duty.—*S. O. 2, A. G. O., January 4, 1882.*

POWELL, J. L., *First Lieutenant and Assistant Surgeon.*—The seven days leave of absence granted him in order 186, Fort Stockton, Texas, is extended fifteen days.—*O. 159, Department of Texas, December 27, 1881.*

CARTER, W. F., *First Lieutenant and Assistant Surgeon.*—The seven days' leave granted him by order 195 c. s., Fort Concho, Texas, extended one month, providing he furnish an acceptable substitute during his absence, without expense to the United States.—*S. O. 160, Department of Texas, December 29, 1881.*

GORGAS, WM. C., *First Lieutenant and Assistant Surgeon.*—The leave of absence granted him by Par. 5, S. O. 150, Headquarters Department of Texas, December 3, 1881, is extended one month.—*S. O. 1, Military Division of the Missouri, January 4, 1882.*

MADDOX, THOMAS J. C., *First Lieutenant and Assistant Surgeon.*—Now awaiting orders in Washington, D. C., to report in person to the commanding general, Department of Texas, for assignment to duty.—*S. O. 2, A. G. O., c. s.*

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FROM OCTOBER 1, TO DECEMBER 31, 1881.

HEBERSMITH, ERNEST, *Surgeon.*—Relieved from duty at San Francisco, Cal., and placed on waiting orders, November 7, 1881. Relieved from waiting orders, November 26, 1881.

VANSANT, JOHN, *Surgeon.*—Granted fourteen days' leave of absence, October 18, 1881. To proceed to San Francisco, Cal., and assume charge of the service at that port, November 8, 1881.

MILLER, T. W., *Surgeon.*—Granted leave of absence for seven days, October 6, 1881.

PURVIANCE, GEORGE, *Surgeon.*—To proceed to Boston, Mass., and assume charge of the service at that port, November 8, 1881.

AUSTIN, H. W., *Surgeon.*—To proceed to Galveston, Indianola, Corpus Christi, and Brownsville, Texas, as Inspector, October 17, 1881.

FISHER, J. C., *Passed Assistant Surgeon.*—To proceed to Yorktown, Va., as Inspector, October 14, 1881. Detailed as member of Board for the examination of keepers and crews of the Life-Saving Service, Third District, November 18, 1881.

GOLDSBOROUGH, C. B., *Passed Assistant Surgeon.*—Detailed as member of Board for the examination of keepers and crews of the Life-Saving Service, Fifth and Sixth Districts, November 2, 1881.

O'CONNOR, F. J., *Assistant Surgeon.*—Granted leave of absence for fifteen days on account of sickness, December 23, 1881.

GUITERAS, JOHN, *Assistant Surgeon.*—Granted leave of absence for ten days, December 5, 1881.

BENSON, J. A., *Assistant Surgeon.*—Granted leave of absence for twenty-one days, December 7 and 21, 1881.

BANKS, C. E., *Assistant Surgeon.*—To assume temporary charge of the service at San Francisco, Cal., until the arrival of Surgeon Vansant, November 7, 1881.

CARMICHAEL, D. A., *Assistant Surgeon.*—To proceed to Baltimore, Md., for temporary duty, November 2, 1881. To rejoin his station (New York), and thence proceed to Pittsburg, Pa., and assume charge of the service at that port, November 18, 1881.

BENNETT, P. H., *Assistant Surgeon.*—To proceed to Boston, Mass., for temporary duty, October 21, 1881.

PECKHAM, C. T., *Assistant Surgeon.*—To report for temporary duty to Surgeon-in-charge, Boston, Mass., October 21, 1881. To proceed to Vineyard Haven, Mass., for temporary duty, November 4, 1881. To rejoin his station (Boston), and thence proceed to New York, reporting for duty to Surgeon-in-charge, November 9, 1881.

AMES, R. P. M., *Assistant Surgeon.*—To proceed to St. Louis, Mo., for temporary duty, October 21, 1881. To proceed to Evansville, Ind., for temporary duty, December 24, 1881.

DEVAN, S. C., *Assistant Surgeon.*—To proceed to San Francisco, Cal., for temporary duty, October 21, 1881.

URQUHART, F. M., *Assistant Surgeon.*—To report for temporary duty to Surgeon-in-charge, New York, N. Y., October 21, 1881.

APPOINTMENTS.—The following candidates, having passed the examination required by the Regulations, were appointed Assistant Surgeons, by the Secretary of the Treasury, October 20, 1881:

PHILO H. BENNETT, M.D., of New York; CYRUS T. PECKHAM, M.D., of Massachusetts; ROBERT P. M. AMES, M.D., of Pennsylvania; SPENCER C. DEVAN, M.D., of Missouri; and FRANCIS M. URQUHART, M.D., of New York.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*